

1394

Asp Arg Leu Met Leu Glu Leu Gly Phe Ser Lys Val Phe Arg Val Glu
 355 360 365

Asn Pro Phe Asp Phe Met Glu Asn Ile Ser Leu Glu Gly Lys Thr Asn
 370 375 380

Phe Phe Glu Lys Arg Val Gly Glu Tyr Gln Arg Met Gly Val Met Ser
 385 390 395 400

Ser Pro Thr Glu Asn Ser Phe Thr Leu Asp Ala Asp Phe
 405 410

<210> 1348

<211> 243

<212> PRT

<213> Homo sapiens

<400> 1348

Thr Gly Asn Lys Met Gln Asp Pro Asn Ala Asp Thr Glu Trp Asn Asp
 1 5 10 15

Ile Leu Arg Lys Lys Gly Ile Leu Pro Pro Lys Glu Ser Leu Lys Glu
 20 25 30

Leu Glu Glu Glu Ala Glu Glu Glu Gln Arg Ile Leu Gln Gln Ser Val
 35 40 45

Val Lys Thr Tyr Glu Asp Met Thr Leu Glu Glu Leu Glu Asp His Glu
 50 55 60

Asp Glu Phe Asn Glu Glu Asp Glu Arg Ala Ile Glu Met Tyr Arg Arg
 65 70 75 80

Arg Arg Leu Ala Glu Trp Lys Ala Thr Lys Leu Lys Asn Lys Phe Gly
 85 90 95

Glu Val Leu Glu Ile Ser Gly Lys Asp Tyr Val Gln Glu Val Thr Lys
 100 105 110

Ala Gly Glu Gly Leu Trp Val Ile Leu His Leu Tyr Lys Gln Gly Ile
 115 120 125

Pro Leu Cys Ala Leu Ile Asn Gln His Leu Ser Gly Leu Ala Arg Lys
 130 135 140

Phe Pro Asp Val Lys Phe Ile Lys Ala Ile Ser Thr Thr Cys Ile Pro
 145 150 155 160

Asn Tyr Pro Asp Arg Asn Leu Pro Thr Ile Phe Val Tyr Leu Glu Gly

1395

| | | | | | |
|---|-----|--|-----|--|-----|
| | 165 | | 170 | | 175 |
| Asp Ile Lys Ala Gln Phe Ile Gly Pro Leu Val Phe Gly Gly Met Asn | | | | | |
| | 180 | | 185 | | 190 |
| Leu Thr Arg Asp Glu Leu Glu Trp Lys Leu Ser Glu Ser Gly Ala Ile | | | | | |
| | 195 | | 200 | | 205 |
| Met Thr Asp Leu Glu Glu Asn Pro Lys Lys Pro Ile Glu Asp Val Leu | | | | | |
| | 210 | | 215 | | 220 |
| Leu Ser Ser Val Arg Arg Ser Val Leu Met Lys Arg Asp Ser Asp Ser | | | | | |
| | 225 | | 230 | | 235 |
| | | | | | 240 |
| Glu Gly Asp | | | | | |

<210> 1349

<211> 326

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (137)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (142)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1349

| |
|---|
| Arg Met Ala Thr Pro Leu Pro Pro Pro Ser Pro Arg His Leu Arg Leu |
| 1 5 10 15 |

| |
|---|
| Leu Arg Leu Leu Leu Ser Gly Leu Val Leu Gly Ala Ala Leu Arg Gly |
| 20 25 30 |

| |
|---|
| Ala Ala Ala Gly His Pro Asp Val Ala Ala Cys Pro Gly Ser Leu Asp |
| 35 40 45 |

| |
|---|
| Cys Ala Leu Lys Arg Arg Ala Arg Cys Pro Pro Gly Ala His Ala Cys |
| 50 55 60 |

| |
|---|
| Gly Pro Cys Leu Gln Pro Phe Gln Glu Asp Gln Gln Gly Leu Cys Val |
| 65 70 75 80 |

Pro Arg Met Arg Arg Pro Pro Gly Gly Gly Arg Pro Gln Pro Arg Leu

1396

| 85 | | | | | 90 | | | | | 95 | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Asp | Glu | Ile | Asp | Phe | Leu | Ala | Gln | Glu | Leu | Ala | Arg | Lys | Glu | Ser |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Gly | His | Ser | Thr | Pro | Pro | Leu | Pro | Lys | Asp | Arg | Gln | Arg | Leu | Pro | Glu |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Pro | Ala | Thr | Leu | Gly | Phe | Ser | Ala | Xaa | Gly | Gln | Gly | Leu | Xaa | Leu | Gly |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| Leu | Pro | Ser | Thr | Pro | Gly | Thr | Pro | Thr | Pro | Thr | Pro | His | Thr | Ser | Leu |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Gly | Ser | Pro | Val | Ser | Ser | Asp | Pro | Val | His | Met | Ser | Pro | Leu | Glu | Pro |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Arg | Gly | Gly | Gln | Gly | Asp | Gly | Leu | Ala | Leu | Val | Leu | Ile | Leu | Ala | Phe |
| | | | 180 | | | | | 185 | | | | | | 190 | |
| Cys | Val | Ala | Gly | Ala | Ala | Ala | Leu | Ser | Val | Ala | Ser | Leu | Cys | Trp | Cys |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Arg | Leu | Gln | Arg | Glu | Ile | Arg | Leu | Thr | Gln | Lys | Ala | Asp | Tyr | Ala | Thr |
| | | 210 | | | | 215 | | | | | 220 | | | | |
| Ala | Lys | Ala | Pro | Gly | Ser | Pro | Ala | Ala | Pro | Arg | Ile | Ser | Pro | Gly | Asp |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Gln | Arg | Leu | Ala | Gln | Ser | Ala | Glu | Met | Tyr | His | Tyr | Gln | His | Gln | Arg |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Gln | Gln | Met | Leu | Cys | Leu | Glu | Arg | His | Lys | Glu | Pro | Pro | Lys | Glu | Leu |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Asp | Thr | Ala | Ser | Ser | Asp | Glu | Glu | Asn | Glu | Asp | Gly | Asp | Phe | Thr | Val |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Tyr | Glu | Cys | Pro | Gly | Leu | Ala | Pro | Thr | Gly | Glu | Met | Glu | Val | Arg | Asn |
| | | 290 | | | | 295 | | | | | 300 | | | | |
| Pro | Leu | Phe | Asp | His | Ala | Ala | Leu | Ser | Ala | Pro | Leu | Pro | Ala | Pro | Ser |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Ser | Pro | Pro | Ala | Leu | Pro | | | | | | | | | | |
| | | | | | 325 | | | | | | | | | | |

<210> 1350

<211> 62

1397

<212> PRT

<213> Homo sapiens

<400> .1350

Val Lys Ser Asp Thr Pro Pro Cys Val Ser Lys Asn Leu Val Pro Pro
 1 5 10 15

Leu His Thr Ser Leu Thr Leu Asn Ile Phe His Trp Ile Leu Asp Arg
 20 25 30

Ala Lys Gly Arg Thr Gly Ala Ser Gly Gly Pro Trp Leu Phe Lys Ser
 35 40 45

Trp Ile Ile Cys Asp Ser Asn His Lys Phe Leu Ala Asn Phe
 50 55 60

<210> 1351

<211> 312

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (299)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1351

Glu Pro Arg Pro Gly Cys Gly Asn Lys Met Ala Gly Lys Lys Asn Val
 1 5 10 15

Leu Ser Ser Leu Ala Val Tyr Ala Glu Asp Ser Glu Pro Glu Ser Asp
 20 25 30

Gly Glu Ala Gly Ile Glu Ala Val Gly Ser Ala Ala Glu Glu Lys Gly
 35 40 45

Gly Leu Val Ser Asp Ala Tyr Gly Glu Asp Asp Phe Ser Arg Leu Gly
 50 55 60

Gly Asp Glu Asp Gly Tyr Glu Glu Glu Glu Asp Glu Asn Ser Arg Gln
 65 70 75 80

Ser Glu Asp Asp Asp Ser Glu Thr Glu Lys Pro Glu Ala Asp Asp Pro
 85 90 95

Lys Asp Asn Thr Glu Ala Glu Lys Arg Asp Pro Gln Glu Leu Val Ala
 100 105 110

Ser Phe Ser Glu Arg Val Arg Asn Met Ser Pro Asp Glu Ile Lys Ile

1398

| | | |
|---|-----|-----|
| 115 | 120 | 125 |
| Pro Pro Glu Pro Pro Gly Arg Cys Ser Asn His Leu Gln Asp Lys Ile | | |
| 130 | 135 | 140 |
| Gln Lys Leu Tyr Glu Arg Lys Ile Lys Glu Gly Met Asp Met Asn Tyr | | |
| 145 | 150 | 155 |
| Ile Ile Gln Arg Lys Lys Glu Phe Arg Asn Pro Ser Ile Tyr Glu Lys | | |
| | 165 | 170 |
| | | 175 |
| Leu Ile Gln Phe Cys Ala Ile Asp Glu Leu Gly Thr Asn Tyr Pro Lys | | |
| | 180 | 185 |
| | | 190 |
| Asp Met Phe Asp Pro His Gly Trp Ser Glu Asp Ser Tyr Tyr Glu Ala | | |
| | 195 | 200 |
| | | 205 |
| Leu Ala Lys Ala Gln Lys Ile Glu Met Asp Lys Leu Glu Lys Ala Lys | | |
| | 210 | 215 |
| | | 220 |
| Lys Glu Arg Thr Lys Ile Glu Phe Val Thr Gly Thr Lys Lys Gly Thr | | |
| 225 | 230 | 235 |
| | | 240 |
| Thr Thr Asn Ala Thr Ser Thr Thr Thr Thr Thr Ala Ser Thr Ala Val | | |
| | 245 | 250 |
| | | 255 |
| Ala Asp Ala Gln Lys Arg Lys Ser Lys Trp Asp Ser Ala Ile Pro Val | | |
| | 260 | 265 |
| | | 270 |
| Thr Thr Ile Ser Pro Ala His His Pro His His His Ser His Pro Ala | | |
| | 275 | 280 |
| | | 285 |
| Ser Cys Cys His Gly His His Gln Arg Gln Xaa Ser Lys Asp His Arg | | |
| | 290 | 295 |
| | | 300 |
| His Leu Cys Cys Gly Ala Pro Leu | | |
| 305 | 310 | |

<210> 1352

<211> 259

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (7)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1352

1399

Leu Leu Asp Ser Leu Lys Xaa Asp Tyr Ala Gly Lys Pro Gln Pro Pro
 1 5 10 15
 Ile Lys Ser Glu Arg Arg Asn Pro Pro Ser Tyr Ala Met Ala Gly Lys
 20 25 30
 Lys Val Leu Ile Val Tyr Ala His Gln Glu Pro Lys Ser Phe Asn Gly
 35 40 45
 Ser Leu Lys Asn Val Ala Val Asp Glu Leu Ser Arg Gln Gly Cys Thr
 50 55 60
 Val Thr Val Ser Asp Leu Tyr Ala Met Asn Phe Glu Pro Arg Ala Thr
 65 70 75 80
 Asp Lys Asp Ile Thr Gly Thr Leu Ser Asn Pro Glu Val Phe Asn Tyr
 85 90 95
 Gly Val Glu Thr His Glu Ala Tyr Lys Gln Arg Ser Leu Ala Ser Asp
 100 105 110
 Ile Thr Asp Glu Gln Lys Lys Val Arg Glu Ala Asp Leu Val Ile Phe
 115 120 125
 Gln Phe Pro Leu Tyr Trp Phe Ser Val Pro Ala Ile Leu Lys Gly Trp
 130 135 140
 Met Asp Arg Val Leu Cys Gln Gly Phe Ala Phe Asp Ile Pro Gly Phe
 145 150 155 160
 Tyr Asp Ser Gly Leu Leu Gln Gly Lys Leu Ala Leu Leu Ser Val Thr
 165 170 175
 Thr Gly Gly Thr Ala Glu Met Tyr Thr Lys Thr Gly Val Asn Gly Asp
 180 185 190
 Ser Arg Tyr Phe Leu Trp Pro Leu Gln His Gly Thr Leu His Phe Cys
 195 200 205
 Gly Phe Lys Val Leu Ala Pro Gln Ile Ser Phe Ala Pro Glu Ile Ala
 210 215 220
 Ser Glu Glu Glu Arg Lys Gly Met Val Ala Ala Trp Ser Gln Arg Leu
 225 230 235 240
 Gln Thr Ile Trp Lys Glu Glu Pro Ile Pro Cys Thr Ala His Trp His
 245 250 255
 Phe Gly Gln

1400

<210> 1353
 <211> 72
 <212> PRT
 <213> Homo sapiens

<400> 1353
 Asp Leu Ala Ser Glu Glu His Phe Phe Ser Val Lys Phe Leu Tyr Leu
 1 5 10 15
 Lys Ile Gln Lys Tyr Phe Arg Ile Leu Leu Ile Leu Ser Pro Val Phe
 20 25 30
 Thr Ser Phe Trp Lys Thr Cys Ile Thr Met Ser Leu Glu Lys Gly Gln
 35 40 45
 Arg Lys Ala Phe His Val Lys Ile Arg Ser Leu Ala Ile Ser Asn Pro
 50 55 60
 Val Leu Phe Ser Leu His Phe Phe
 65 70

<210> 1354
 <211> 301
 <212> PRT
 <213> Homo sapiens

<400> 1354
 Lys Arg Arg Arg Arg Leu Glu Gln Arg Gln Gln Pro Asp Glu Gln Arg
 1 5 10 15
 Arg Arg Ser Gly Ala Met Val Lys Met Ala Ala Ala Gly Gly Gly Gly
 20 25 30
 Gly Gly Gly Arg Tyr Tyr Gly Gly Gly Ser Glu Gly Gly Arg Ala Pro
 35 40 45
 Lys Arg Leu Lys Thr Asp Asn Ala Gly Asp Gln His Gly Gly Gly Gly
 50 55 60
 Gly Gly Gly Gly Gly Ala Gly Ala Ala Gly Gly Gly Gly Gly Glu
 65 70 75 80
 Asn Tyr Asp Asp Pro His Lys Thr Pro Ala Ser Pro Val Val His Ile
 85 90 95
 Arg Gly Leu Ile Asp Gly Val Val Glu Ala Asp Leu Val Glu Ala Leu
 100 105 110

1401

Gln Glu Phe Gly Pro Ile Ser Tyr Val Val Val Met Pro Lys Lys Arg
 115 120 125
 Gln Ala Leu Val Glu Phe Glu Asp Val Leu Gly Ala Cys Asn Ala Val
 130 135 140
 Asn Tyr Ala Ala Asp Asn Gln Ile Tyr Ile Ala Gly His Pro Ala Phe
 145 150 155 160
 Val Asn Tyr Ser Thr Ser Gln Lys Ile Ser Arg Pro Gly Asp Ser Asp
 165 170 175
 Asp Ser Arg Ser Val Asn Ser Val Leu Leu Phe Thr Ile Leu Asn Pro
 180 185 190
 Ile Tyr Ser Ile Thr Thr Asp Val Leu Tyr Thr Ile Cys Asn Pro Cys
 195 200 205
 Gly Pro Val Gln Arg Ile Val Ile Phe Arg Lys Asn Gly Val Gln Ala
 210 215 220
 Met Val Glu Phe Asp Ser Val Gln Ser Ala Gln Arg Ala Lys Ala Ser
 225 230 235 240
 Leu Asn Gly Ala Asp Ile Tyr Ser Gly Cys Cys Thr Leu Lys Ile Glu
 245 250 255
 Tyr Ala Lys Pro Thr Arg Leu Asn Val Phe Lys Asn Asp Gln Asp Thr
 260 265 270
 Trp Asp Tyr Thr Asn Pro Asn Leu Ser Gly Gln Gly Asn Leu Asp Asp
 275 280 285
 His Phe Val Leu Asn Ile Pro Ala Leu Leu Ser Leu Asp
 290 295 300

<210> 1355

<211> 466

<212> PRT

<213> Homo sapiens

<400> 1355

Asn Thr Val Met Gly Arg Lys Lys Lys Lys Gln Leu Lys Pro Trp Cys
 1 5 10 15

Trp Tyr Cys Asn Arg Asp Phe Asp Asp Glu Lys Ile Leu Ile Gln His
 20 25 30

1402

Gln Lys Ala Lys His Phe Lys Cys His Ile Cys His Lys Lys Leu Tyr
 35 40 45
 Thr Gly Pro Gly Leu Ala Ile His Cys Met Gln Val His Lys Glu Thr
 50 55 60
 Ile Asp Ala Val Pro Asn Ala Ile Pro Gly Arg Thr Asp Ile Glu Leu
 65 70 75 80
 Glu Ile Tyr Gly Met Glu Gly Ile Pro Glu Lys Asp Met Asp Glu Arg
 85 90 95
 Arg Arg Leu Leu Glu Gln Lys Thr Gln Glu Ser Gln Lys Lys Lys Gln
 100 105 110
 Gln Asp Asp Ser Asp Glu Tyr Asp Asp Asp Asp Ser Ala Ala Ser Thr
 115 120 125
 Ser Phe Gln Pro Gln Pro Val Gln Pro Gln Gln Gly Tyr Ile Pro Pro
 130 135 140
 Met Ala Gln Pro Gly Leu Pro Pro Val Pro Gly Ala Pro Gly Met Pro
 145 150 155 160
 Pro Gly Ile Pro Pro Leu Met Pro Gly Val Pro Pro Leu Met Pro Gly
 165 170 175
 Met Pro Pro Val Met Pro Gly Met Pro Pro Gly Leu His His Gln Arg
 180 185 190
 Lys Tyr Thr Gln Ser Phe Cys Gly Glu Asn Ile Met Met Pro Met Gly
 195 200 205
 Gly Met Met Pro Pro Gly Pro Gly Ile Pro Pro Leu Met Pro Gly Met
 210 215 220
 Pro Pro Gly Met Pro Pro Pro Val Pro Arg Pro Gly Ile Pro Pro Met
 225 230 235 240
 Thr Gln Ala Gln Ala Val Ser Ala Pro Gly Ile Leu Asn Arg Pro Pro
 245 250 255
 Ala Pro Thr Ala Thr Val Pro Ala Pro Gln Pro Pro Val Thr Lys Pro
 260 265 270
 Leu Phe Pro Ser Ala Gly Gln Ala Gln Ala Ala Val Gln Gly Pro Val
 275 280 285
 Gly Thr Asp Phe Lys Pro Leu Asn Ser Thr Pro Ala Thr Thr Thr Glu
 290 295 300

1403

Pro Pro Lys Pro Thr Phe Pro Ala Tyr Thr Gln Ser Thr Ala Ser Thr
305 310 315 320

Thr Ser Thr Thr Asn Ser Thr Ala Ala Lys Pro Ala Ala Ser Ile Thr
325 330 335

Ser Lys Pro Ala Thr Leu Thr Thr Thr Ser Ala Thr Ser Lys Leu Ile
340 345 350

His Pro Asp Glu Asp Ile Ser Leu Glu Glu Arg Arg Ala Gln Leu Pro
355 360 365

Lys Tyr Gln Arg Asn Leu Pro Arg Pro Gly Gln Ala Pro Ile Gly Asn
370 375 380

Pro Pro Val Gly Pro Ile Gly Gly Met Met Pro Pro Gln Pro Gly Ile
385 390 395 400

Pro Gln Gln Gln Gly Met Arg Pro Pro Met Pro Pro His Gly Gln Tyr
405 410 415

Gly Gly His His Gln Gly Met Pro Gly Tyr Leu Pro Gly Ala Met Pro
420 425 430

Pro Tyr Gly Gln Gly Pro Pro Met Val Pro Pro Tyr Gln Gly Gly Pro
435 440 445

Pro Arg Pro Pro Met Gly Met Arg Pro Pro Val Met Ser Gln Gly Gly
450 455 460

Arg Tyr
465

<210> 1356

<211> 85

<212> PRT

<213> Homo sapiens

<400> 1356

Leu Ser Asp Asp Gln Ser Leu Leu Ile Ile Leu Leu Leu Lys Gly Leu
1 5 10 15

Leu Thr Asn Leu Ser Phe Thr Pro Cys Gly Pro Cys Tyr Trp Tyr Thr
20 25 30

Gln Tyr Val Leu Thr Glu Asp Met Asp Phe Ile Cys Ser Ser Ala Gly
35 40 45

Ile Gly Lys L u Asp Leu Phe Ser Met Ile Gln Asn Ser Pro Ile Arg

1404

50 55 60
 Arg Leu Glu Lys Glu Glu Leu Tyr Ser Ser Leu Cys Tyr Phe Leu Leu
 65 70 75 80
 Pro Phe Leu Phe Leu
 85

<210> 1357
 <211> 580
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (3)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (526)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1357
 Asp Ser Xaa Thr Phe Asp Asp Leu Ala Val Asp Phe Thr Pro Glu Glu
 1 5 10 15
 Trp Thr Leu Leu Asp Pro Thr Gln Arg Asn Leu Tyr Arg Asp Val Met
 20 25 30
 Leu Glu Asn Tyr Lys Asn Leu Ala Thr Val Gly Tyr Gln Leu Phe Lys
 35 40 45
 Pro Ser Leu Ile Ser Trp Leu Glu Gln Glu Glu Ser Arg Thr Val Gln
 50 55 60
 Arg Gly Asp Phe Gln Ala Ser Glu Trp Lys Val Gln Leu Lys Thr Lys
 65 70 75 80
 Glu Leu Ala Leu Gln Gln Asp Val Leu Gly Glu Pro Thr Ser Ser Gly
 85 90 95
 Ile Gln Met Ile Gly Ser His Asn Gly Gly Glu Val Ser Asp Val Lys
 100 105 110
 Gln Cys Gly Asp Val Ser Ser Glu His Ser Cys Leu Lys Thr His Val
 115 120 125
 Arg Thr Gln Asn Ser Glu Asn Thr Phe Glu Cys Tyr Leu Tyr Gly Val

1405

| | | |
|---|-----|-------------|
| 130 | 135 | 140 |
| Asp Phe Leu Thr Leu His Lys Lys Thr Ser Thr Gly Glu Gln Arg Ser | | |
| 145 | 150 | 155 160 |
| Val Phe Ser Gln Cys Gly Lys Ala Phe Ser Leu Asn Pro Asp Val Val | | |
| | 165 | 170 175 |
| Cys Gln Arg Thr Cys Thr Gly Glu Lys Ala Phe Asp Cys Ser Asp Ser | | |
| | 180 | 185 190 |
| Gly Lys Ser Phe Ile Asn His Ser His Leu Gln Gly His Leu Arg Thr | | |
| | 195 | 200 205 |
| His Asn Gly Glu Ser Leu His Glu Trp Lys Glu Cys Gly Arg Gly Phe | | |
| | 210 | 215 220 |
| Ile His Ser Thr Asp Leu Ala Val Arg Ile Gln Thr His Arg Ser Glu | | |
| | 225 | 230 235 240 |
| Lys Pro Tyr Lys Cys Lys Glu Cys Gly Lys Gly Phe Arg Tyr Ser Ala | | |
| | 245 | 250 255 |
| Tyr Leu Asn Ile His Met Gly Thr His Thr Gly Asp Asn Pro Tyr Glu | | |
| | 260 | 265 270 |
| Cys Lys Glu Cys Gly Lys Ala Phe Thr Arg Ser Cys Gln Leu Thr Gln | | |
| | 275 | 280 285 |
| His Arg Lys Thr His Thr Gly Glu Lys Pro Tyr Lys Cys Lys Asp Cys | | |
| | 290 | 295 300 |
| Gly Arg Ala Phe Thr Val Ser Ser Cys Leu Ser Gln His Met Lys Ile | | |
| | 305 | 310 315 320 |
| His Val Gly Glu Lys Pro Tyr Glu Cys Lys Glu Cys Gly Ile Ala Phe | | |
| | 325 | 330 335 |
| Thr Arg Ser Ser Gln Leu Thr Glu His Leu Lys Thr His Thr Ala Lys | | |
| | 340 | 345 350 |
| Asp Pro Phe Glu Cys Lys Ile Cys Gly Lys Ser Phe Arg Asn Ser Ser | | |
| | 355 | 360 365 |
| Cys Leu Ser Asp His Phe Arg Ile His Thr Gly Ile Lys Pro Tyr Lys | | |
| | 370 | 375 380 |
| Cys Lys Asp Cys Gly Lys Ala Phe Thr Gln Asn Ser Asp Leu Thr Lys | | |
| | 385 | 390 395 400 |
| His Ala Arg Thr His Ser Gly Glu Arg Pro Tyr Glu Cys Lys Glu Cys | | |

1406

| | | |
|---|-----|-----|
| 405 | 410 | 415 |
| Gly Lys Ala Phe Ala Arg Ser Ser Arg Leu Ser Glu His Thr Arg Thr | | |
| 420 | 425 | 430 |
| His Thr Gly Glu Lys Pro Phe Glu Cys Val Lys Cys Gly Lys Ala Phe | | |
| 435 | 440 | 445 |
| Ala Ile Ser Ser Asn Leu Ser Gly His Leu Arg Ile His Thr Gly Glu | | |
| 450 | 455 | 460 |
| Lys Pro Phe Glu Cys Leu Glu Cys Gly Lys Ala Phe Thr His Ser Ser | | |
| 465 | 470 | 475 |
| Ser Leu Asn Asn His Met Arg Thr His Ser Ala Lys Lys Pro Phe Thr | | |
| 485 | 490 | 495 |
| Cys Met Glu Cys Gly Lys Ala Phe Lys Phe Pro Thr Cys Val Asn Leu | | |
| 500 | 505 | 510 |
| His Met Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Xaa Gln Cys | | |
| 515 | 520 | 525 |
| Gly Lys Ser Phe Ser Tyr Ser Asn Ser Phe Gln Leu His Glu Arg Thr | | |
| 530 | 535 | 540 |
| His Thr Gly Glu Lys Pro Tyr Glu Cys Lys Glu Cys Gly Lys Ala Phe | | |
| 545 | 550 | 555 |
| Ser Ser Ser Ser Ser Phe Arg Asn His Glu Arg Arg His Ala Asp Glu | | |
| 565 | 570 | 575 |
| Arg Leu Ser Ala | | |
| 580 | | |

<210> 1358

<211> 612

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (134)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (445)

<223> Xaa equals any of the naturally occurring L-amino acids

1407

<400> 1358

Glu Val Pro Glu Ala His Arg Ala Ser Pro Arg Glu Gly Thr Ser Gly
 1 5 10 15

Gly Glu Arg Leu Gln Asp Leu Val Lys Ser Lys Met Ser Glu Thr Ser
 20 25 30

Arg Thr Ala Phe Gly Gly Arg Arg Ala Val Pro Pro Asn Asn Ser Asn
 35 40 45

Ala Ala Glu Asp Asp Leu Pro Thr Val Glu Leu Gln Gly Val Val Pro
 50 55 60

Arg Gly Val Asn Leu Gln Asp Asp Ala Val Tyr Leu Asp Asn Glu Lys
 65 70 75 80

Glu Arg Glu Glu Tyr Val Leu Asn Asp Ile Gly Val Ile Phe Tyr Gly
 85 90 95

Glu Val Asn Asp Ile Lys Thr Arg Ser Trp Ser Tyr Gly Gln Phe Glu
 100 105 110

Asp Gly Ile Leu Asp Thr Cys Leu Tyr Val Met Asp Arg Ala Gln Met
 115 120 125

Asp Leu Ser Gly Arg Xaa Asn Pro Ile Lys Val Ser Arg Val Gly Ser
 130 135 140

Ala Met Val Asn Ala Lys Asp Asp Glu Gly Val Leu Val Gly Ser Trp
 145 150 155 160

Asp Asn Ile Tyr Ala Tyr Gly Val Pro Pro Ser Ala Trp Thr Gly Ser
 165 170 175

Val Asp Ile Leu Leu Glu Tyr Arg Ser Ser Glu Asn Pro Val Arg Tyr
 180 185 190

Gly Gln Cys Trp Val Phe Ala Gly Val Phe Asn Thr Phe Leu Arg Cys
 195 200 205

Leu Gly Ile Pro Ala Arg Ile Val Thr Asn Tyr Phe Ser Ala His Asp
 210 215 220

Asn Asp Ala Asn Leu Gln Met Asp Ile Phe Leu Glu Glu Asp Gly Asn
 225 230 235 240

Val Asn Ser Lys Leu Thr Lys Asp Ser Val Trp Asn Tyr His Cys Trp
 245 250 255

Asn Glu Ala Trp Met Thr Arg Pro Asp Leu Pro Val Gly Phe Gly Gly

1408

| | | |
|---|-----|---------|
| 260 | 265 | 270 |
| Trp Gln Ala Val Asp Ser Thr Pro Gln Glu Asn Ser Asp Gly Met Tyr | | |
| 275 | 280 | 285 |
| Arg Cys Gly Pro Ala Ser Val Gln Ala Ile Lys His Gly His Val Cys | | |
| 290 | 295 | 300 |
| Phe Gln Phe Asp Ala Pro Phe Val Phe Ala Glu Val Asn Ser Asp Leu | | |
| 305 | 310 | 315 320 |
| Ile Tyr Ile Thr Ala Lys Lys Asp Gly Thr His Val Val Glu Asn Val | | |
| 325 | 330 | 335 |
| Asp Ala Thr His Ile Gly Lys Leu Ile Val Thr Lys Gln Ile Gly Gly | | |
| 340 | 345 | 350 |
| Asp Gly Met Met Asp Ile Thr Asp Thr Tyr Lys Phe Gln Glu Gly Gln | | |
| 355 | 360 | 365 |
| Glu Glu Glu Arg Leu Ala Leu Glu Thr Ala Leu Met Tyr Gly Ala Lys | | |
| 370 | 375 | 380 |
| Lys Pro Leu Asn Thr Glu Gly Val Met Lys Ser Arg Ser Asn Val Asp | | |
| 385 | 390 | 395 400 |
| Met Asp Phe Glu Val Glu Asn Ala Val Leu Gly Lys Asp Phe Lys Leu | | |
| 405 | 410 | 415 |
| Ser Ile Thr Phe Arg Asn Asn Ser His Asn Arg Tyr Thr Ile Thr Ala | | |
| 420 | 425 | 430 |
| Tyr Leu Ser Ala Asn Ile Thr Phe Tyr Thr Gly Val Xaa Lys Ala Glu | | |
| 435 | 440 | 445 |
| Phe Lys Lys Glu Thr Phe Asp Val Thr Leu Glu Pro Leu Ser Phe Lys | | |
| 450 | 455 | 460 |
| Lys Glu Ala Val Leu Ile Gln Ala Gly Glu Tyr Met Gly Gln Leu Leu | | |
| 465 | 470 | 475 480 |
| Glu Gln Ala Ser Leu His Phe Phe Val Thr Ala Arg Ile Asn Glu Thr | | |
| 485 | 490 | 495 |
| Arg Asp Val Leu Ala Lys Gln Lys Ser Thr Val Leu Thr Ile Pro Glu | | |
| 500 | 505 | 510 |
| Ile Ile Ile Lys Val Arg Gly Thr Gln Val Val Gly Ser Asp Met Thr | | |
| 515 | 520 | 525 |
| Val Thr Val Glu Phe Thr Asn Pro Leu Lys Glu Thr Leu Arg Asn Val | | |

1409

| | | |
|---|-----|---------|
| 530 | 535 | 540 |
| Trp Val His Leu Asp Gly Pro Gly Val Thr Arg Pro Met Lys Lys Met | | |
| 545 | 550 | 555 560 |
| Phe Arg Glu Ile Arg Pro Asn Ser Thr Val Gln Trp Glu Glu Val Cys | | |
| | 565 | 570 575 |
| Arg Pro Trp Val Ser Gly His Arg Lys Leu Ile Ala Ser Met Ser Ser | | |
| | 580 | 585 590 |
| Asp Ser Leu Arg His Val Tyr Gly Glu Leu Asp Val Gln Ile Gln Arg | | |
| | 595 | 600 605 |
| Arg Pro Ser Met | | |
| 610 | | |

<210> 1359

<211> 56

<212> PRT

<213> Homo sapiens

<400> 1359

| |
|---|
| Leu Ser Cys Ile Val Leu Leu Arg Gln Ser Ser Val Lys Leu Tyr Gln |
| 1 5 10 15 |

| |
|---|
| Leu Arg Leu Val Ser Ser Asp Phe His Trp Gly Ile Arg Val Leu Ala |
| 20 25 30 |

| |
|---|
| Gly Leu Asn Leu Leu Leu Val Gly Ser Val Phe Leu Met Asn Lys Ser |
| 35 40 45 |

| |
|---------------------------------|
| His Ser Thr Glu Leu Gln Val Ile |
| 50 55 |

<210> 1360

<211> 415

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (368)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (374)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (379)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (381)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (384)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (385)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (386)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (389)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (397)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (404)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (405)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (409)

1411

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1360

Gly Gly Gly Gly Glu Lys Met Ala Asp Asp Pro Ser Ala Ala Asp Arg
 1 5 10 15

Asn Val Glu Ile Trp Lys Ile Lys Lys Leu Ile Lys Ser Leu Glu Ala
 20 25 30

Ala Arg Gly Asn Gly Thr Ser Met Ile Ser Leu Ile Ile Pro Pro Lys
 35 40 45

Asp Gln Ile Ser Arg Val Ala Lys Met Leu Ala Asp Glu Phe Gly Thr
 50 55 60

Ala Ser Asn Ile Lys Ser Arg Val Asn Arg Leu Ser Val Leu Gly Ala
 65 70 75 80

Ile Thr Ser Val Gln Gln Arg Leu Lys Leu Tyr Asn Lys Val Pro Pro
 85 90 95

Asn Gly Leu Val Val Tyr Cys Gly Thr Ile Val Thr Glu Glu Gly Lys
 100 105 110

Glu Lys Lys Val Asn Ile Asp Phe Glu Pro Phe Lys Pro Ile Asn Thr
 115 120 125

Ser Leu Tyr Leu Cys Asp Asn Lys Phe His Thr Glu Ala Leu Thr Ala
 130 135 140

Leu Leu Ser Asp Asp Ser Lys Phe Gly Phe Ile Val Ile Asp Gly Ser
 145 150 155 160

Gly Ala Leu Phe Gly Thr Leu Gln Gly Asn Thr Arg Glu Val Leu His
 165 170 175

Lys Phe Thr Val Asp Leu Pro Lys Lys His Gly Arg Gly Gly Gln Ser
 180 185 190

Ala Leu Arg Phe Ala Arg Leu Arg Met Glu Lys Arg His Asn Tyr Val
 195 200 205

Arg Lys Val Ala Glu Thr Ala Val Gln Leu Phe Ile Ser Gly Asp Lys
 210 215 220

Val Asn Val Ala Gly Leu Val Leu Ala Gly Ser Ala Asp Phe Lys Thr
 225 230 235 240

Glu Leu Ser Gln Ser Asp Met Phe Asp Gln Arg Leu Gln Ser Lys Val
 245 250 255

1412

Leu Lys Leu Val Asp Ile Ser Tyr Gly Gly Glu Asn Gly Phe Asn Gln
 260 265 270
 Ala Ile Glu Leu Ser Thr Glu Val Leu Ser Asn Val Lys Phe Ile Gln
 275 280 285
 Glu Lys Lys Leu Ile Gly Arg Tyr Phe Asp Glu Ile Ser Gln Asp Thr
 290 295 300
 Gly Lys Tyr Cys Phe Gly Val Glu Asp Thr Leu Lys Ala Leu Glu Met
 305 310 315 320
 Gly Ala Val Glu Ile Leu Ile Val Tyr Glu Asn Leu Asp Ile Met Arg
 325 330 335
 Tyr Val Leu His Cys Gln Gly Thr Glu Glu Glu Lys Ile Leu Tyr Leu
 340 345 350
 Thr Pro Glu Gln Glu Lys Asp Lys Ser His Phe Thr Asp Lys Glu Xaa
 355 360 365
 Arg Thr Gly Thr Met Xaa Leu Ser Arg Ala Xaa Pro Xaa Leu Glu Xaa
 370 375 380
 Xaa Xaa Asn Asn Xaa Lys Lys Leu Gly Leu Pro Trp Xaa Ile Gly Pro
 385 390 395 400
 Ile Asn Ser Xaa Xaa Arg Gly Gln Xaa Trp Lys Arg Ile Gly Gly
 405 410 415

<210> 1361

<211> 119

<212> PRT

<213> Homo sapiens

<400> 1361

His Ala Ser Ala Asp Ala Trp Ala Asp Ala Trp Val Ala Gly Ser Asp
 1 5 10 15
 Phe Ile Lys Thr Ser Thr Gly Lys Glu Thr Val Asn Ala Thr Phe Pro
 20 25 30
 Val Ala Ile Val Met Leu Arg Ala Ile Arg Asp Phe Phe Trp Lys Thr
 35 40 45
 Gly Asn Lys Ile Gly Phe Lys Pro Ala Gly Gly Ile Arg Ser Ala Lys
 50 55 60
 Asp Ser Leu Ala Trp Leu Ser Leu Val Lys Glu Glu Leu Gly Asp Glu

1413

65 70 75 80
 Trp Leu Lys Pro Glu Leu Phe Arg Ile Gly Ala Ser Thr Leu Leu Ser
 85 90 95
 Asp Ile Glu Arg Gln Ile Tyr His His Val Thr Gly Arg Tyr Ala Ala
 100 105 110
 Tyr His Asp Leu Pro Met Ser
 115

<210> 1362
 <211> 282
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (34)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (35)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1362
 Gly Arg Val Gly Gly Arg Val Gly Gly Arg Val Gly Phe Thr Ala Lys
 1 5 10 15
 Val Trp Asp Ala Val Ser Gly Asp Glu Leu Met Thr Leu Ala His Lys
 20 25 30
 His Xaa Xaa Lys Thr Val Asp Phe Thr Gln Asp Ser Asn Tyr Leu Leu
 35 40 45
 Thr Gly Gly Gln Asp Lys Leu Leu Arg Ile Tyr Asp Leu Asn Lys Pro
 50 55 60
 Glu Ala Glu Pro Lys Glu Ile Ser Gly His Thr Ser Gly Ile Lys Lys
 65 70 75 80
 Ala Leu Trp Cys Ser Glu Asp Lys Gln Ile Leu Ser Ala Asp Asp Lys
 85 90 95
 Thr Val Arg Leu Trp Asp His Ala Thr Met Thr Glu Val Lys Ser Leu
 100 105 110
 Asn Phe Asn Met Ser Val Ser Ser Met Glu Tyr Il Pro Glu Gly Glu

1414

| 115 | 120 | 125 |
|---|-----|-------------|
| Ile Leu Val Ile Thr Tyr Gly Arg Ser Ile Ala Phe His Ser Ala Val | | |
| 130 | 135 | 140 |
| Ser Leu Asp Pro Ile Lys Ser Phe Glu Ala Pro Ala Thr Ile Asn Ser | | |
| 145 | 150 | 155 160 |
| Ala Ser Leu His Pro Glu Lys Glu Phe Leu Val Ala Gly Gly Glu Asp | | |
| | 165 | 170 175 |
| Phe Lys Leu Tyr Lys Tyr Asp Tyr Asn Ser Gly Glu Glu Leu Glu Ser | | |
| | 180 | 185 190 |
| Tyr Lys Gly His Phe Gly Pro Ile His Cys Val Arg Phe Ser Pro Asp | | |
| | 195 | 200 205 |
| Gly Glu Leu Tyr Ala Ser Gly Ser Glu Asp Gly Thr Leu Arg Leu Trp | | |
| | 210 | 215 220 |
| Gln Thr Val Val Gly Lys Thr Tyr Gly Leu Trp Lys Cys Val Leu Pro | | |
| | 225 | 230 235 240 |
| Glu Glu Asp Ser Gly Glu Leu Ala Lys Pro Lys Ile Gly Phe Pro Glu | | |
| | 245 | 250 255 |
| Thr Thr Glu Glu Glu Leu Glu Glu Ile Ala Ser Glu Asn Ser Asp Cys | | |
| | 260 | 265 270 |
| Ile Phe Pro Ser Ala Pro Asp Val Lys Ala | | |
| | 275 | 280 |

<210> 1363
 <211> 334
 <212> PRT
 <213> Homo sapiens

<400> 1363
 Thr Pro Arg Thr Pro Glu Pro His Lys Pro Gly Leu Ala Met Lys Pro
 1 5 10 15
 Gly Phe Ser Pro Arg Gly Gly Gly Phe Gly Gly Arg Gly Gly Phe Gly
 20 25 30
 Asp Arg Gly Gly Arg Gly Gly Arg Gly Gly Phe Gly Gly Arg Gly
 35 40 45
 Arg Gly Gly Gly Phe Arg Gly Arg Gly Arg Gly Gly Gly Gly Gly
 50 55 60

1415

Gly Gly Gly Gly Gly Gly Gly Arg Gly Gly Gly Gly Phe His Ser Gly
 65 70 75 80

Gly Asn Arg Gly Arg Gly Arg Gly Gly Lys Arg Gly Asn Gln Ser Gly
 85 90 95

Lys Asn Val Met Val Glu Pro His Arg His Glu Gly Val Phe Ile Cys
 100 105 110

Arg Gly Lys Glu Asp Ala Leu Val Thr Lys Asn Leu Val Pro Gly Glu
 115 120 125

Ser Val Tyr Gly Glu Lys Arg Val Ser Ile Ser Glu Gly Asp Asp Lys
 130 135 140

Ile Glu Tyr Arg Ala Trp Asn Pro Phe Arg Ser Lys Leu Ala Ala Ala
 145 150 155 160

Ile Leu Gly Gly Val Asp Gln Ile His Ile Lys Pro Gly Ala Lys Val
 165 170 175

Leu Tyr Leu Gly Ala Ala Ser Gly Thr Thr Val Ser His Val Ser Asp
 180 185 190

Ile Val Gly Pro Asp Gly Leu Val Tyr Ala Val Glu Phe Ser His Arg
 195 200 205

Ser Gly Arg Asp Leu Ile Asn Leu Ala Lys Lys Arg Thr Asn Ile Ile
 210 215 220

Pro Val Ile Glu Asp Ala Arg His Pro His Lys Tyr Arg Met Leu Ile
 225 230 235 240

Ala Met Val Asp Val Ile Phe Ala Asp Val Ala Gln Pro Asp Gln Thr
 245 250 255

Arg Ile Val Ala Leu Asn Ala His Thr Phe Leu Arg Asn Gly Gly His
 260 265 270

Phe Val Ile Ser Ile Lys Ala Asn Cys Ile Asp Ser Thr Ala Ser Ala
 275 280 285

Glu Ala Val Phe Ala Ser Glu Val Lys Lys Met Gln Gln Glu Asn Met
 290 295 300

Lys Pro Gln Glu Gln Leu Thr Leu Glu Pro Tyr Glu Arg Asp His Ala
 305 310 315 320

Val Val Val Gly Val Tyr Arg Pro Pro Pro Lys Val Lys Asn
 325 330

1416

<210> 1364

<211> 602

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (356)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1364

Pro Gly Ala Glu Lys Ser Gly Arg Ala Ala Glu Arg Pro Gly Arg Gly
 1 5 10 15

Pro Gly Arg Gly Ala His Ser Arg Pro Thr Ala Pro Arg Glu Arg Ala
 20 25 30

Pro Arg Ser Pro Ala Pro Ser Pro Pro Gly Met Gly Arg Ala Ala Ala
 35 40 45

Ala Glu Ala Pro Ala Trp Pro Gly Arg Thr Arg Pro Glu Ala Glu Gly
 50 55 60

Arg Ala Arg Ala Gln Leu Pro Gly His Gln Ile Gly Ala Arg Arg Ala
 65 70 75 80

Gly Gly Pro Arg Ala Gly Leu Glu Met Ser Trp Pro Arg Arg Leu Leu
 85 90 95

Leu Arg Tyr Leu Phe Pro Ala Leu Leu Leu His Gly Leu Gly Glu Gly
 100 105 110

Ser Ala Leu Leu His Pro Asp Ser Arg Ser His Pro Arg Ser Leu Glu
 115 120 125

Lys Ser Ala Trp Arg Ala Phe Lys Glu Ser Gln Cys His His Met Leu
 130 135 140

Lys His Leu His Asn Gly Ala Arg Ile Thr Val Gln Met Pro Pro Thr
 145 150 155 160

Ile Glu Gly His Trp Val Ser Thr Gly Cys Glu Val Arg Ser Gly Pro
 165 170 175

Glu Phe Ile Thr Arg Ser Tyr Arg Phe Tyr His Asn Asn Thr Phe Lys
 180 185 190

Ala Tyr Gln Phe Tyr Tyr Gly Ser Asn Arg Cys Thr Asn Pro Thr Tyr

1417

| | | |
|---|-----|---------|
| 195 | 200 | 205 |
| Thr Leu Ile Ile Arg Gly Lys Ile Arg Leu Arg Gln Ala Ser Trp Ile | | |
| 210 | 215 | 220 |
| Ile Arg Gly Gly Thr Glu Ala Asp Tyr Gln Leu His Asn Val Gln Val | | |
| 225 | 230 | 235 240 |
| Ile Cys His Thr Glu Ala Val Ala Glu Lys Leu Gly Gln Gln Val Asn | | |
| | 245 | 250 255 |
| Arg Thr Cys Pro Gly Phe Leu Ala Asp Gly Gly Pro Trp Val Gln Asp | | |
| | 260 | 265 270 |
| Val Ala Tyr Asp Leu Trp Arg Glu Glu Asn Gly Cys Glu Cys Thr Lys | | |
| | 275 | 280 285 |
| Ala Val Asn Phe Ala Met His Glu Leu Gln Leu Ile Arg Val Glu Lys | | |
| | 290 | 295 300 |
| Gln Tyr Leu His His Asn Leu Asp His Leu Val Glu Glu Leu Phe Leu | | |
| 305 | 310 | 315 320 |
| Gly Asp Ile His Thr Asp Ala Thr Gln Arg Met Phe Tyr Arg Pro Ser | | |
| | 325 | 330 335 |
| Ser Tyr Gln Pro Pro Leu Gln Asn Ala Lys Asn His Asp His Ala Cys | | |
| | 340 | 345 350 |
| Ile Ala Cys Xaa Ile Ile Tyr Arg Ser Asp Glu His His Pro Pro Ile | | |
| | 355 | 360 365 |
| Leu Pro Pro Lys Ala Asp Leu Thr Ile Gly Leu His Gly Glu Trp Val | | |
| | 370 | 375 380 |
| Ser Gln Arg Cys Glu Val Arg Pro Glu Val Leu Phe Leu Thr Arg His | | |
| 385 | 390 | 395 400 |
| Phe Ile Phe His Asp Asn Asn Asn Thr Trp Glu Gly His Tyr Tyr His | | |
| | 405 | 410 415 |
| Tyr Ser Asp Pro Val Cys Lys His Pro Thr Phe Ser Ile Tyr Ala Arg | | |
| | 420 | 425 430 |
| Gly Arg Tyr Ser Arg Gly Val Leu Ser Ser Arg Val Met Gly Gly Thr | | |
| | 435 | 440 445 |
| Glu Phe Val Phe Lys Val Asn His Met Lys Val Thr Pro Met Asp Ala | | |
| | 450 | 455 460 |
| Ala Thr Ala Ser Leu Leu Asn Val Phe Asn Gly Asn Glu Cys Gly Ala | | |

1418

| | | | | | | |
|---|--|-----|--|-----|--|-----|
| 465 | | 470 | | 475 | | 480 |
| Glu Gly Ser Trp Gln Val Gly Ile Gln Gln Asp Val Thr His Thr Asn | | | | | | |
| | | 485 | | 490 | | 495 |
| Gly Cys Val Ala Leu Gly Ile Lys Leu Pro His Thr Glu Tyr Glu Ile | | | | | | |
| | | 500 | | 505 | | 510 |
| Phe Lys Met Glu Gln Asp Ala Arg Gly Arg Tyr Leu Leu Phe Asn Gly | | | | | | |
| | | 515 | | 520 | | 525 |
| Gln Arg Pro Ser Asp Gly Ser Ser Pro Asp Arg Pro Glu Lys Arg Ala | | | | | | |
| | | 530 | | 535 | | 540 |
| Thr Ser Tyr Gln Met Pro Leu Val Gln Cys Ala Ser Ser Ser Pro Arg | | | | | | |
| | | 545 | | 550 | | 555 |
| Ala Glu Asp Leu Ala Glu Asp Ser Gly Ser Ser Leu Tyr Gly Arg Ala | | | | | | |
| | | 565 | | 570 | | 575 |
| Pro Gly Arg His Thr Trp Ser Leu Leu Leu Ala Ala Leu Ala Cys Leu | | | | | | |
| | | 580 | | 585 | | 590 |
| Val Pro Leu Leu His Trp Asn Ile Arg Arg | | | | | | |
| | | 595 | | 600 | | |

<210> 1365

<211> 158

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (26)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (40)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (78)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (98)

1419

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (136)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (141)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (142)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1365

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Asn | Ser | Gly | Tyr | Pro | Phe | Trp | Thr | Pro | Ser | Met | Leu | Trp | Lys | Leu |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Thr | Phe | Thr | Leu | Leu | Asn | Lys | Ala | Xaa | Ser | Phe | Phe | Ser | Leu | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | His | Val | Ser | Phe | Thr | His | Xaa | Gly | Gln | Leu | Pro | His | His | Phe | Phe |
| | 35 | | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Val | Ala | Trp | Gln | Glu | Pro | Gln | Val | Leu | His | Leu | Gly | Glu | Pro | Asp |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Arg | Leu | Gln | Lys | Arg | Ile | Lys | Ala | Ile | Lys | Leu | Gln | Xaa | Ile | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Met | Glu | Pro | Gln | Met | Ser | Ser | Ala | His | Gly | Phe | Tyr | Arg | Gly | Pro |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Xaa | Gln | Pro | Ala | Gly | Pro | Ser | Ile | Thr | Leu | Glu | Asn | Ser | Pro | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Asp | Thr | Lys | Leu | Gln | Gly | Pro | Phe | Phe | Thr | Pro | Asn | Gln | Gln | Glu |
| | | 115 | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Ala | Arg | Thr | Asp | Cys | His | Xaa | Val | Pro | Asn | Ser | Xaa | Xaa | Gly | Cys |
| | 130 | | | | | 135 | | | | | 140 | | | | |

| | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Val | Leu | Glu | Ala | Gly | Phe | Arg | Gly | Gly | Ala | Gln | Leu | Gly |
| 145 | | | | | 150 | | | | | 155 | | | |

<210> 1366

1420

<211> 466

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (12)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (205)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (220)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (347)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1366

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Thr | Arg | Xaa | Arg | Glu | Gly | Asn | Ser | His | Ser | Xaa | Gly | His | Lys | Thr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Gln | Gly | Ser | Leu | Gly | Arg | Leu | Ser | Ser | Ala | Val | Pro | Gly | Ser | Gly |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Glu | Leu | Ser | Pro | Val | Pro | Asn | Thr | Asp | Gly | Thr | Met | Asn | Ser | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Ser | Phe | Ser | Gln | Thr | Pro | Ser | Ala | Ser | Phe | His | Gly | Ala | Gly | Gly |
| | 50 | | | | | | 55 | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Trp | Gly | Arg | Pro | Arg | Ser | Phe | Pro | Arg | Ala | Pro | Thr | Val | His | Gly |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Ala | Gly | Gly | Ala | Arg | Ile | Ser | Leu | Ser | Phe | Thr | Thr | Arg | Ser | Cys |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Pro | Pro | Gly | Gly | Ser | Trp | Gly | Ser | Gly | Arg | Ser | Ser | Pro | Leu | Leu |
| | | | 100 | | | | | 105 | | | | | | 110 | |

1421

Gly Gly Asn Gly Lys Ala Thr Met Gln Asn Leu Asn Asp Arg Leu Ala
 115 120 125

Ser Tyr Leu Glu Lys Val Arg Ala Leu Glu Glu Ala Asn Met Lys Leu
 130 135 140

Glu Ser Arg Ile Leu Lys Trp His Gln Gln Arg Asp Pro Gly Ser Lys
 145 150 155 160

Lys Asp Tyr Ser Gln Tyr Glu Glu Asn Ile Thr His Leu Gln Glu Gln
 165 170 175

Ile Val Asp Gly Lys Met Thr Asn Ala Gln Ile Ile Leu Leu Ile Asp
 180 185 190

Asn Ala Arg Met Ala Val Asp Asp Phe Asn Leu Lys Xaa Glu Asn Glu
 195 200 205

His Ser Phe Lys Lys Asp Leu Glu Ile Glu Val Xaa Gly Leu Arg Arg
 210 215 220

Thr Leu Asp Asn Leu Thr Ile Val Thr Thr Asp Leu Glu Gln Glu Val
 225 230 235 240

Glu Gly Met Arg Lys Glu Leu Ile Leu Met Lys Lys His His Glu Gln
 245 250 255

Glu Met Glu Lys His His Val Pro Ser Asp Phe Asn Val Asn Val Lys
 260 265 270

Val Asp Thr Gly Pro Arg Glu Asp Leu Ile Lys Val Leu Glu Asp Met
 275 280 285

Arg Gln Glu Tyr Glu Leu Ile Ile Lys Lys Lys His Arg Asp Leu Asp
 290 295 300

Thr Trp Tyr Lys Glu Gln Ser Ala Ala Met Ser Gln Glu Ala Ala Ser
 305 310 315 320

Pro Ala Thr Val Gln Ser Arg Gln Gly Asp Ile His Glu Leu Lys Arg
 325 330 335

Thr Phe Gln Ala Leu Glu Ile Asp Leu Gln Xaa Gln Tyr Ser Thr Lys
 340 345 350

Ser Ala Leu Glu Asn Met Leu Ser Glu Thr Gln Ser Arg Tyr Ser Cys
 355 360 365

Lys Leu Gln Asp Met Gln Glu Ile Ile Ser His Tyr Glu Glu Glu Leu
 370 375 380

1422

Thr Gln Leu Arg His Glu Leu Glu Arg Gln Asn Asn Glu Tyr Gln Val
 385 390 395 400

Leu Leu Gly Ile Lys Thr His Leu Glu Lys Glu Ile Thr Thr Tyr Arg
 405 410 415

Arg Leu Leu Glu Gly Glu Ser Glu Gly Thr Arg Glu Glu Ser Lys Ser
 420 425 430

Ser Met Lys Val Ser Ala Thr Pro Lys Ile Lys Ala Ile Thr Gln Glu
 435 440 445

Thr Ile Asn Gly Arg Leu Val Leu Cys Gln Val Asn Glu Ile Gln Lys
 450 455 460

His Ala
 465

<210> 1367

<211> 153

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (136)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (138)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (141)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (142)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (143)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1423

<221> SITE

<222> (152)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1367

Leu Arg Phe Ala Ser Pro Gly Pro Gly Ala Gly Arg Ala Arg Asp Ser
 1 5 10 15

Gln Arg Lys Trp Arg Arg Leu Arg Ala Arg Pro Leu Leu Gly Pro Gly
 20 25 30

Gln Gly Trp Ser Trp Ala Gly Ile Pro Ser Ser Ala Ala Ala Gln Arg
 35 40 45

Ala Gly Pro Pro Ala Gly Ala Leu Glu Ala Leu Ser Pro Gly Gly Ala
 50 55 60

Arg Ala His Ala Glu Arg Arg Gly Glu Met Arg Ala Thr Pro Leu Ala
 65 70 75 80

Ala Pro Ala Gly Ser Leu Ser Arg Lys Lys Arg Leu Glu Leu Asp Asp
 85 90 95

Asn Leu Asp Thr Glu Arg Pro Val Gln Lys Arg Ala Arg Ser Gly Pro
 100 105 110

Gln Pro Arg Leu Pro Pro Cys Leu Leu Pro Leu Ser Pro Pro Thr Ala
 115 120 125

Pro Asp Arg Ala Thr Ala Val Xaa Thr Xaa Ser Arg Xaa Xaa Xaa Tyr
 130 135 140

Val Leu Leu Glu Ala Arg Arg Xaa Ala
 145 150

<210> 1368

<211> 399

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (13)

<223> Xaa equals any of the naturally occurring L-amino acids

1424

<400> 1368

```

Ser Asp Asn Xaa Thr Asn Gly Cys Gly Leu Glu Ser Xaa Gly Asn Thr
 1              5              10              15

Val Thr Pro Val Asn Val Asn Glu Val Lys Pro Ile Asn Lys Gly Glu
      20              25              30

Glu Gln Ile Gly Phe Glu Leu Val Glu Lys Leu Phe Gln Gly Gln Leu
      35              40              45

Val Leu Arg Thr Arg Cys Leu Glu Cys Glu Ser Leu Thr Glu Arg Arg
      50              55              60

Glu Asp Phe Gln Asp Ile Ser Val Pro Val Gln Glu Asp Glu Leu Ser
      65              70              75              80

Lys Val Glu Glu Ser Ser Glu Ile Ser Pro Glu Pro Lys Thr Glu Met
      85              90              95

Lys Thr Leu Arg Trp Ala Ile Ser Gln Phe Ala Ser Val Glu Arg Ile
      100             105             110

Val Gly Glu Asp Lys Tyr Phe Cys Glu Asn Cys His His Tyr Thr Glu
      115             120             125

Ala Glu Arg Ser Leu Leu Phe Asp Lys Met Pro Glu Val Ile Thr Ile
      130             135             140

His Leu Lys Cys Phe Ala Ala Ser Gly Leu Glu Phe Asp Cys Tyr Gly
      145             150             155             160

Gly Gly Leu Ser Lys Ile Asn Thr Pro Leu Leu Thr Pro Leu Lys Leu
      165             170             175

Ser Leu Glu Glu Trp Ser Thr Lys Pro Thr Asn Asp Ser Tyr Gly Leu
      180             185             190

Phe Ala Val Val Met His Ser Gly Ile Thr Ile Ser Ser Gly His Tyr
      195             200             205

Thr Ala Ser Val Lys Val Thr Asp Leu Asn Ser Leu Glu Leu Asp Lys
      210             215             220

Gly Asn Phe Val Val Asp Gln Met Cys Glu Ile Gly Lys Pro Glu Pro
      225             230             235             240

Leu Asn Glu Glu Glu Ala Arg Gly Val Val Glu Asn Tyr Asn Asp Glu
      245             250             255

Glu Val Ser Ile Arg Val Gly Gly Asn Thr Gln Pro Ser Lys Val Leu

```

1425

| | | |
|---|-----|-----|
| 260 | 265 | 270 |
| Asn Lys Lys Asn Val Glu Ala Ile Gly Leu Leu Gly Gly Gln Lys Ser | | |
| 275 | 280 | 285 |
| Lys Ala Asp Tyr Glu Leu Tyr Asn Lys Ala Ser Asn Pro Asp Lys Val | | |
| 290 | 295 | 300 |
| Ala Ser Thr Ala Phe Ala Glu Asn Arg Asn Ser Glu Thr Ser Asp Thr | | |
| 305 | 310 | 315 |
| Thr Gly Thr His Glu Ser Asp Arg Asn Lys Glu Ser Ser Asp Gln Thr | | |
| 325 | 330 | 335 |
| Gly Ile Asn Ile Ser Gly Phe Glu Asn Lys Ile Ser Tyr Val Val Gln | | |
| 340 | 345 | 350 |
| Ser Leu Lys Glu Tyr Glu Gly Lys Trp Leu Leu Phe Asp Asp Ser Glu | | |
| 355 | 360 | 365 |
| Val Lys Val Thr Glu Glu Lys Asp Phe Leu Asn Ser Leu Ser Pro Ser | | |
| 370 | 375 | 380 |
| Thr Ser Pro Thr Ser Thr Pro Tyr Leu Leu Phe Tyr Lys Lys Leu | | |
| 385 | 390 | 395 |

<210> 1369

<211> 260

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1369

| |
|--|
| Val Phe Xaa Ser Phe Phe Ala Glu Lys Glu Gln Gln Glu Ala Ile Glu |
| 1 5 10 15 |

| |
|---|
| His Ile Asp Glu Val Gln Asn Glu Ile Asp Arg Leu Asn Glu Gln Ala |
| 20 25 30 |

| |
|---|
| Ser Glu Glu Ile Leu Lys Val Glu Gln Lys Tyr Asn Lys Leu Arg Gln |
| 35 40 45 |

| |
|--|
| Pro Ph Phe Gln Lys Arg Ser Glu Leu Ile Ala Lys Ile Pro Asn Phe |
| 50 55 60 |

1426

Trp Val Thr Thr Phe Val Asn His Pro Gln Val Ser Ala Leu Leu Gly
 65 70 75 80
 Glu Glu Asp Glu Glu Ala Leu His Tyr Leu Thr Arg Val Glu Val Thr
 85 90 95
 Glu Phe Glu Asp Ile Lys Ser Gly Tyr Arg Ile Asp Phe Tyr Phe Asp
 100 105 110
 Glu Asn Pro Tyr Phe Glu Asn Lys Val Leu Ser Lys Glu Phe His Leu
 115 120 125
 Asn Glu Ser Gly Asp Pro Ser Ser Lys Ser Thr Glu Ile Lys Trp Lys
 130 135 140
 Ser Gly Lys Asp Leu Thr Lys Arg Ser Ser Gln Thr Gln Asn Lys Ala
 145 150 155 160
 Ser Arg Lys Arg Gln His Glu Glu Pro Glu Ser Phe Phe Thr Trp Phe
 165 170 175
 Thr Asp His Ser Asp Ala Gly Ala Asp Glu Leu Gly Glu Val Ile Lys
 180 185 190
 Asp Asp Ile Trp Pro Asn Pro Leu Gln Tyr Tyr Leu Val Pro Asp Met
 195 200 205
 Asp Asp Glu Glu Gly Glu Gly Glu Glu Asp Asp Asp Asp Asp Glu Glu
 210 215 220
 Glu Glu Gly Leu Glu Asp Ile Asp Glu Glu Gly Asp Glu Asp Glu Gly
 225 230 235 240
 Glu Glu Asp Glu Asp Asp Asp Glu Gly Glu Glu Gly Glu Glu Asp Glu
 245 250 255
 Gly Glu Asp Asp
 260

<210> 1370

<211> 155

<212> PRT

<213> Homo sapiens

<400> 1370

Lys Gly Glu Ala Ala Ala Phe Ser Ala Thr Phe Pro Ile Ala Arg Gln
 1 5 10 15

Glu Phe Leu Ser Val Thr Thr Ile Ala Val Met Ser Gly Arg Gly Lys

1427

| | | | | | | |
|---|-----|-----|-----|-----|-----|-----|
| | 20 | | 25 | | 30 | |
| Gln Gly Gly Lys Ala Arg Ala Lys Ala Lys Ser Arg Ser Ser Arg Ala | | | | | | |
| | 35 | | 40 | | 45 | |
| Gly Leu Gln Phe Pro Val Gly Glu Cys Ile Ala Leu Arg Lys Gly Asn | | | | | | |
| | 50 | | 55 | | 60 | |
| Tyr Ala Glu Arg Val Gly Ala Gly Ala Pro Val Tyr Met Ala Ala Val | | | | | | |
| | 65 | | 70 | | 75 | 80 |
| Leu Glu Tyr Leu Thr Ala Glu Ile Leu Glu Leu Ala Gly Asn Ala Ala | | | | | | |
| | | 85 | | 90 | | 95 |
| Arg Asp Asn Lys Lys Thr Arg Ile Ile Pro Arg His Leu Gln Leu Ala | | | | | | |
| | | 100 | | 105 | | 110 |
| Ile Arg Asn Asp Glu Glu Leu Asn Lys Leu Leu Gly Lys Val Thr Ile | | | | | | |
| | | 115 | | 120 | | 125 |
| Ala Gln Gly Gly Val Leu Pro Asn Ile Gln Ala Val Leu Leu Pro Lys | | | | | | |
| | 130 | | 135 | | 140 | |
| Lys Thr Glu Ser His His Lys Ala Lys Gly Lys | | | | | | |
| | 145 | | 150 | | 155 | |

<210> 1371

<211> 140

<212> PRT

<213> Homo sapiens

<400> 1371

| | | | | | | |
|---|----|----|----|----|----|----|
| Phe Pro Gly Arg Thr His Ala Leu Cys Arg Gly Ala Ala Ser Arg Gly | | | | | | |
| | 1 | | 5 | | 10 | 15 |
| Leu Leu Cys Lys Trp Ala Pro Trp Pro Ser Ala Pro Val Pro Ala Thr | | | | | | |
| | | 20 | | 25 | | 30 |
| Arg Asp Arg Ala Pro Arg Pro Ala Arg Gly Arg Arg Pro Asp Pro Thr | | | | | | |
| | | 35 | | 40 | | 45 |
| Ser Gln Gln Ala Lys Ala Trp Arg Pro Ser Pro Pro Ala Ala Arg Ser | | | | | | |
| | 50 | | 55 | | 60 | |
| Trp Pro Pro Thr Thr Thr Thr Gly Ala Ala Trp Val Pro Leu Pro Ala | | | | | | |
| | 65 | | 70 | | 75 | 80 |
| Thr Ala Pro Ala Ala Val Pro Ser Ala Pro Gly Lys Pro Phe Pro Thr | | | | | | |
| | | 85 | | 90 | | 95 |

1428

Pro Gln Val Ser Pro Arg Leu Thr Arg Val Ile Gly Gly Pro Ala Ser
 100 105 110

Phe Ser Gly Ser Pro Pro Ser Arg Ser Trp Pro Arg Cys Trp Ser Pro
 115 120 125

Gln Ser Thr Arg Asn Leu Pro Arg Pro Pro Ala Ala
 130 135 140

<210> 1372

<211> 150

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (126)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (127)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (128)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (135)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (142)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (147)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1372

Pro Trp Thr Leu Gly Gly Pro Glu Leu Asp Ala Met Gly Gly Cys Ala
 1 5 10 15

1429

Gly Ser Arg Arg Arg Ph Ser Asp Ser Glu Gly Glu Glu Thr Val Pro
 20 25 30
 Glu Pro Arg Leu Pro Leu Leu Asp His Gln Gly Ala His Trp Lys Asn
 35 40 45
 Ala Val Gly Phe Trp Leu Leu Gly Leu Cys Asn Asn Phe Ser Tyr Val
 50 55 60
 Val Met Leu Ser Ala Ala His Asp Ile Leu Ser His Lys Arg Thr Ser
 65 70 75 80
 Gly Asn Gln Ser His Val Asp Pro Gly Pro Thr Pro Ile Pro His Asn
 85 90 95
 Ser Ser Ser Arg Phe Asp Cys Asn Ser Val Ser Thr Ala Ala Val Leu
 100 105 110
 Leu Ala Asp Ile Leu Pro Thr Leu Val Ile Lys Leu Leu Xaa Xaa Xaa
 115 120 125
 Gly Leu His Leu Leu Pro Xaa Thr Val Glu Asp Ala Val Xaa Leu Cys
 130 135 140
 Ala Leu Xaa Gly Thr Ala
 145 150

<210> 1373
 <211> 128
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (21)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (121)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1373
 Arg His Ser Arg Val Asp Pro Arg Val Arg Ala Arg Phe Arg Arg Arg
 1 5 10 15
 Arg Ala Phe Ala Xaa Leu Gly Trp Ser Ser Gly Arg Val Ser Arg Pro
 20 25 30

1430

Glu His Val Asp Ala His Pro Pro Leu Ser Leu Met Glu Val Val Thr
 35 40 45

Phe Gly Asp Val Ala Val His Phe Ser Arg Glu Glu Trp Gln Cys Leu
 50 55 60

Asp Pro Gly Gln Arg Ala Leu Tyr Arg Glu Val Met Leu Glu Asn His
 65 70 75 80

Ser Ser Val Ala Gly Leu Ala Gly Phe Leu Val Phe Lys Pro Glu Leu
 85 90 95

Ile Ser Arg Leu Glu Gln Gly Glu Glu Pro Trp Val Leu Asp Leu Gln
 100 105 110

Gly Ala Glu Gly Thr Glu Ala Pro Xaa Thr Ser Lys Thr Gly Glu Ala
 115 120 125

<210> 1374

<211> 398

<212> PRT

<213> Homo sapiens

<400> 1374

Ser Ser Trp Leu Arg Ser Arg Ser Gly Met Gln Thr Asp Leu Gln Asn
 1 5 10 15

Leu Gly Asn Asp Ser Gly Asp His Ser Asp His Met His Tyr Tyr Gln
 20 25 30

Gly Lys Lys Tyr Phe Arg Asp Arg Arg Gly Gly Gly Arg Asn Ser Asp
 35 40 45

Trp Ser Ser Asp Thr Asn Arg Gln Gly Gln Gln Ser Ser Ser Asp Cys
 50 55 60

Tyr Ile Tyr Asp Ser Ala Thr Gly Tyr Tyr Tyr Asp Pro Leu Ala Gly
 65 70 75 80

Thr Tyr Tyr Asp Pro Asn Thr Gln Gln Glu Val Tyr Val Pro Gln Asp
 85 90 95

Pro Gly Leu Pro Glu Glu Glu Glu Ile Lys Glu Lys Lys Pro Thr Ser
 100 105 110

Gln Gly Lys Ser Ser Ser Lys Lys Glu Met Ser Lys Arg Asp Gly Lys

1431

| | | |
|---|-----|-----|
| 115 | 120 | 125 |
| Glu Lys Lys Asp Arg Gly Val Thr Arg Phe Gln Glu Asn Ala Ser Glu | | |
| 130 | 135 | 140 |
| Gly Lys Ala Pro Ala Glu Asp Val Phe Lys Lys Pro Leu Pro Pro Thr | | |
| 145 | 150 | 155 |
| Val Lys Lys Glu Glu Ser Pro Pro Pro Pro Lys Val Val Asn Pro Leu | | |
| | 165 | 170 |
| Ile Gly Leu Leu Gly Glu Tyr Gly Gly Asp Ser Asp Tyr Glu Glu Glu | | |
| | 180 | 185 |
| Glu Glu Glu Glu Gln Thr Pro Pro Pro Gln Pro Arg Thr Ala Gln Pro | | |
| | 195 | 200 |
| Gln Lys Arg Glu Glu Gln Thr Lys Lys Glu Asn Glu Glu Asp Lys Leu | | |
| | 210 | 220 |
| Thr Asp Trp Asn Lys Leu Ala Cys Leu Leu Cys Arg Arg Gln Phe Pro | | |
| | 225 | 235 |
| Asn Lys Glu Val Leu Ile Lys His Gln Gln Leu Ser Asp Leu His Lys | | |
| | 245 | 250 |
| Gln Asn Leu Glu Ile His Arg Lys Ile Lys Gln Ser Glu Gln Glu Leu | | |
| | 260 | 265 |
| Ala Tyr Leu Glu Arg Arg Glu Arg Glu Gly Lys Phe Lys Gly Arg Gly | | |
| | 275 | 280 |
| Asn Asp Arg Arg Glu Lys Leu Gln Ser Phe Asp Ser Pro Glu Arg Lys | | |
| | 290 | 300 |
| Arg Ile Lys Tyr Ser Arg Glu Thr Asp Ser Asp Arg Lys Leu Val Asp | | |
| | 305 | 315 |
| Lys Glu Asp Ile Asp Thr Ser Ser Lys Gly Gly Cys Val Gln Gln Ala | | |
| | 325 | 330 |
| Thr Gly Trp Arg Lys Gly Thr Gly Leu Gly Tyr Gly His Pro Gly Leu | | |
| | 340 | 345 |
| Ala Ser Ser Glu Glu Ala Glu Gly Arg Met Arg Gly Pro Ser Val Gly | | |
| | 355 | 365 |
| Ala Ser Gly Arg Thr Ser Lys Arg Gln Ser Asn Glu Thr Tyr Arg Asp | | |
| | 370 | 380 |
| Ala Val Arg Arg Val Met Phe Ala Arg Tyr Lys Glu Leu Asp | | |

1432

385

390

395

<210> 1375

<211> 167

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (157)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (161)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (163)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1375

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Arg | Gly | Lys | Arg | Tyr | Thr | Asp | Ser | Thr | Val | Arg | Asn | Ser | Arg | Val |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Pro | Arg | Val | Arg | Ser | Ala | Lys | Pro | Glu | Ser | Cys | Pro | Phe | Ser | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Gly | Gln | His | Glu | Leu | His | His | Ser | Leu | His | Leu | Leu | His | Gln | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Val | Pro | Gly | Leu | Cys | Pro | Gly | Ala | Gln | Leu | Arg | Arg | Pro | Ala | Gly |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Gln | Arg | Gly | Gln | Arg | Leu | Cys | Arg | Arg | Trp | Gly | Leu | Trp | Phe | Pro |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Leu | Arg | Val | Pro | Leu | His | Gln | Leu | Gln | Gly | Arg | His | Gly | Val | Arg |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Pro | Gly | His | Arg | Asp | Ser | Arg | Gly | Ser | Gly | Arg | Asn | Gly | Ser | Ile |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Asn | Glu | Lys | Glu | Thr | Met | Gln | Lys | Leu | Asn | Asp | Arg | Leu | Ala | Ser |
| | | 115 | | | | | 120 | | | | 125 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Leu | Asp | Lys | Met | Lys | Glu | Pro | Gly | Asp | Arg | Glu | Thr | Gly | Gly | Trp |
| | 130 | | | | | 135 | | | | | 140 | | | | |

1433

Lys Ala Lys Thr Arg Glu His Phe Gly Glu Glu Gly Xaa Gln Val Arg
 145 150 155 160

Xaa Trp Xaa Pro Leu Ile Gln
 165

<210> 1376

<211> 448

<212> PRT

<213> Homo sapiens

<400> 1376

Leu Pro Asp Val Glu Lys Leu Gly Arg Arg Arg Gly Arg Lys Met Asp
 1 5 10 15

Ser Val Glu Lys Gly Ala Ala Thr Ser Val Ser Asn Pro Arg Gly Arg
 20 25 30

Pro Ser Arg Gly Arg Pro Pro Lys Leu Gln Arg Asn Ser Arg Gly Gly
 35 40 45

Gln Gly Arg Gly Val Glu Lys Pro Pro His Leu Ala Ala Leu Ile Leu
 50 55 60

Ala Arg Gly Gly Ser Lys Gly Ile Pro Leu Lys Asn Ile Lys His Leu
 65 70 75 80

Ala Gly Val Pro Leu Ile Gly Trp Val Leu Arg Ala Ala Leu Asp Ser
 85 90 95

Gly Ala Phe Gln Ser Val Trp Val Ser Thr Asp His Asp Glu Ile Glu
 100 105 110

Asn Val Ala Lys Gln Phe Gly Ala Gln Val His Arg Arg Ser Ser Glu
 115 120 125

Val Ser Lys Asp Ser Ser Thr Ser Leu Asp Ala Ile Ile Glu Phe Leu
 130 135 140

Asn Tyr His Asn Glu Val Asp Ile Val Gly Asn Ile Gln Ala Thr Ser
 145 150 155 160

Pro Cys Leu His Pro Thr Asp Leu Gln Lys Val Ala Glu Met Ile Arg
 165 170 175

Glu Glu Gly Tyr Asp Ser Val Phe Ser Val Val Arg Arg His Gln Phe
 180 185 190

1434

Arg Trp Ser Glu Ile Gln Lys Gly Val Arg Glu Val Thr Glu Pro Leu
 195 200 205

Asn Leu Asn Pro Ala Lys Arg Pro Arg Arg Gln Asp Trp Asp Gly Glu
 210 215 220

Leu Tyr Glu Asn Gly Ser Phe Tyr Phe Ala Lys Arg His Leu Ile Glu
 225 230 235 240

Met Gly Tyr Leu Gln Gly Gly Lys Met Ala Tyr Tyr Glu Met Arg Ala
 245 250 255

Glu His Ser Val Asp Ile Asp Val Asp Ile Asp Trp Pro Ile Ala Glu
 260 265 270

Gln Arg Val Leu Arg Tyr Gly Tyr Phe Gly Lys Glu Lys Leu Lys Glu
 275 280 285

Ile Lys Leu Leu Val Cys Asn Ile Asp Gly Cys Leu Thr Asn Gly His
 290 295 300

Ile Tyr Val Ser Gly Asp Gln Lys Glu Ile Ile Ser Tyr Asp Val Lys
 305 310 315 320

Asp Ala Ile Gly Ile Ser Leu Leu Lys Lys Ser Gly Ile Glu Val Arg
 325 330 335

Leu Ile Ser Glu Arg Ala Cys Ser Lys Gln Thr Leu Ser Ser Leu Lys
 340 345 350

Leu Asp Cys Lys Met Glu Val Ser Val Ser Asp Lys Leu Ala Val Val
 355 360 365

Asp Glu Trp Arg Lys Glu Met Gly Leu Cys Trp Lys Glu Val Ala Tyr
 370 375 380

Leu Gly Asn Glu Val Ser Asp Glu Glu Cys Leu Lys Arg Val Gly Leu
 385 390 395 400

Ser Gly Ala Pro Ala Asp Ala Cys Ser Thr Ala Gln Lys Ala Val Gly
 405 410 415

Tyr Ile Cys Lys Cys Asn Gly Gly Arg Gly Ala Ile Arg Glu Phe Ala
 420 425 430

Glu His Ile Cys Leu Leu Met Glu Lys Val Asn Asn Ser Cys Gln Lys
 435 440 445

1435

<210> 1377

<211> 469

<212> PRT

<213> Homo sapiens

<400> 1377

Gly Gly Pro Ala Lys Met Ala Ala Ser Cys Leu Val Leu Leu Ala Leu
 1 5 10 15

Cys Leu Leu Leu Pro Leu Leu Leu Leu Gly Gly Trp Lys Arg Trp Arg
 20 25 30

Arg Gly Arg Ala Ala Arg His Val Val Ala Val Val Leu Gly Asp Val
 35 40 45

Gly Arg Ser Pro Arg Met Gln Tyr His Ala Leu Ser Leu Ala Met His
 50 55 60

Gly Phe Ser Val Thr Leu Leu Gly Phe Cys Asn Ser Lys Pro His Asp
 65 70 75 80

Glu Leu Leu Gln Asn Asn Arg Ile Gln Ile Val Gly Leu Thr Glu Leu
 85 90 95

Gln Ser Leu Ala Val Gly Pro Arg Val Phe Gln Tyr Gly Val Lys Val
 100 105 110

Val Leu Gln Ala Met Tyr Leu Leu Trp Lys Leu Met Trp Arg Glu Pro
 115 120 125

Gly Ala Tyr Ile Phe Leu Gln Asn Pro Pro Gly Leu Pro Ser Ile Ala
 130 135 140

Val Cys Trp Phe Val Gly Cys Leu Cys Gly Ser Lys Leu Val Ile Asp
 145 150 155 160

Trp His Asn Tyr Gly Tyr Ser Ile Met Gly Leu Val His Gly Pro Asn
 165 170 175

His Pro Leu Val Leu Leu Ala Lys Trp Tyr Glu Lys Phe Phe Gly Arg
 180 185 190

Leu Ser His Leu Asn Leu Cys Val Thr Asn Ala Met Arg Glu Asp Leu
 195 200 205

Ala Asp Asn Trp His Ile Arg Ala Val Thr Val Tyr Asp Lys Pro Ala
 210 215 220

Ser Phe Phe Lys Glu Thr Pro Leu Asp Leu Gln His Arg Leu Phe Met

1436

225 230 235 240
 Lys Leu Gly Ser Met His Ser Pro Phe Arg Ala Arg Ser Glu Pro Glu
 245 250 255
 Asp Pro Val Thr Glu Arg Ser Ala Phe Thr Glu Arg Asp Ala Gly Ser
 260 265 270
 Gly Leu Val Thr Arg Leu Arg Glu Arg Pro Ala Leu Leu Val Ser Ser
 275 280 285
 Thr Ser Trp Thr Glu Asp Glu Asp Phe Ser Ile Leu Leu Ala Ala Leu
 290 295 300
 Glu Lys Phe Glu Gln Leu Thr Leu Asp Gly His Asn Leu Pro Ser Leu
 305 310 315 320
 Val Cys Val Ile Thr Gly Lys Gly Pro Leu Arg Glu Tyr Tyr Ser Arg
 325 330 335
 Leu Ile His Gln Lys His Phe Gln His Ile Gln Val Cys Thr Pro Trp
 340 345 350
 Leu Glu Ala Glu Asp Tyr Pro Leu Leu Leu Gly Ser Ala Asp Leu Gly
 355 360 365
 Val Cys Leu His Thr Ser Ser Ser Gly Leu Asp Leu Pro Met Lys Val
 370 375 380
 Val Asp Met Phe Gly Cys Cys Leu Pro Val Cys Ala Val Asn Phe Lys
 385 390 395 400
 Cys Leu His Glu Leu Val Lys His Glu Glu Asn Gly Leu Val Phe Glu
 405 410 415
 Asp Ser Glu Glu Leu Ala Ala Gln Leu Gln Met Leu Phe Ser Asn Phe
 420 425 430
 Pro Asp Pro Ala Gly Lys Leu Asn Gln Phe Arg Lys Asn Leu Arg Glu
 435 440 445
 Ser Gln Gln Leu Arg Trp Asp Glu Ser Trp Val Gln Thr Val Leu Pro
 450 455 460
 Leu Val Met Asp Thr
 465

<210> 1378

<211> 314

1437

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (93)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1378

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Lys | Ala | Ala | Gly | Ala | Gly | Lys | Ser | His | Leu | Ala | Ile | Val | Gln | Lys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Val | Asn | Asn | Glu | Gly | Glu | Gly | Asp | Pro | Phe | Tyr | Glu | Val | Leu | Gly | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Val | Thr | Leu | Glu | Asp | Val | Ile | Glu | Glu | Ile | Ile | Lys | Ser | Glu | Ile | Leu |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Asp | Glu | Ser | Asp | Met | Tyr | Thr | Asp | Asn | Arg | Ser | Arg | Lys | Arg | Val | Ser |
| | | | 50 | | | | 55 | | | | 60 | | | | |
| Glu | Lys | Asn | Lys | Arg | Asp | Phe | Ser | Ala | Phe | Lys | Asp | Ala | Asp | Asn | Glu |
| | | | 65 | | | 70 | | | | 75 | | | | | 80 |
| Leu | Lys | Val | Lys | Ile | Ser | Pro | Gln | Leu | Leu | Leu | Ala | Xaa | His | Arg | Phe |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Leu | Ala | Thr | Glu | Val | Ser | Gln | Phe | Ser | Pro | Ser | Leu | Ile | Ser | Glu | Lys |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ile | Leu | Leu | Arg | Leu | Leu | Lys | Tyr | Pro | Asp | Val | Ile | Gln | Glu | Leu | Lys |
| | | | 115 | | | | 120 | | | | | 125 | | | |
| Phe | Asp | Glu | His | Asn | Lys | Tyr | Tyr | Ala | Arg | His | Tyr | Leu | Tyr | Thr | Arg |
| | | | 130 | | | 135 | | | | | 140 | | | | |
| Asn | Lys | Pro | Ala | Asp | Tyr | Phe | Ile | Leu | Ile | Leu | Gln | Gly | Lys | Val | Glu |
| | | | 145 | | | 150 | | | | 155 | | | | 160 | |
| Val | Glu | Ala | Gly | Lys | Glu | Asn | Met | Lys | Phe | Glu | Thr | Gly | Ala | Phe | Ser |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Tyr | Tyr | Gly | Thr | Met | Ala | Leu | Thr | Ser | Val | Pro | Ser | Asp | Arg | Ser | Pro |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ala | His | Pro | Thr | Pro | Leu | Ser | Arg | Ser | Ala | Ser | Leu | Ser | Tyr | Pro | Asp |
| | | | 195 | | | | 200 | | | | | 205 | | | |
| Arg | Thr | Asp | Val | Ser | Thr | Ala | Ala | Thr | Leu | Ala | Gly | Ser | Ser | Asn | Gln |
| | | | 210 | | | 215 | | | | | 220 | | | | |

1438

Phe Gly Ser Ser Val Leu Gly Gln Tyr Ile Ser Asp Phe Ser Val Arg
 225 230 235 240

Ala Leu Val Asp Leu Gln Tyr Ile Lys Ile Thr Arg Gln Gln Tyr Gln
 245 250 255

Asn Gly Leu Leu Ala Ser Arg Met Glu Asn Ser Pro Gln Phe Pro Ile
 260 265 270

Asp Gly Cys Thr Thr His Met Glu Asn Leu Ala Glu Lys Ser Glu Leu
 275 280 285

Pro Val Val Asp Glu Thr Thr Thr Leu Leu Asn Glu Arg Asn Ser Leu
 290 295 300

Leu His Lys Ala Ser His Glu Asn Ala Ile
 305 310

<210> 1379

<211> 131

<212> PRT

<213> Homo sapiens

<400> 1379

Ser Cys Pro Val Leu Lys Met Phe Pro Glu Gln Gln Lys Glu Glu Phe
 1 5 10 15

Val Ser Val Trp Val Arg Asp Pro Arg Ile Gln Lys Glu Asp Phe Trp
 20 25 30

His Ser Tyr Ile Asp Tyr Glu Ile Cys Ile His Thr Asn Ser Met Cys
 35 40 45

Phe Thr Met Lys Thr Ser Cys Val Arg Arg Arg Tyr Arg Glu Phe Val
 50 55 60

Trp Leu Arg Gln Arg Leu Gln Ser Asn Ala Leu Leu Val Gln Leu Pro
 65 70 75 80

Glu Leu Pro Ser Lys Asn Leu Phe Phe Asn Met Asn Asn Arg Gln His
 85 90 95

Val Asp Gln Arg Arg Gln Gly Leu Gly Asn Phe Leu Arg Lys Val Leu
 100 105 110

Gln Met His Phe Cys Phe Gln Ile Ala Ala Phe Thr Ser Ser Leu Gln
 115 120 125

Ser His Leu

1439

130

<210> 1380

<211> 219

<212> PRT

<213> Homo sapiens

<400> 1380

Pro Gly Ala Ala Trp Ser Arg Pro Asp Leu Arg Gly Cys Cys Thr Gly
1 5 10 15

Pro Gln Pro Ala Leu Arg Met Leu Val Leu Pro Ser Pro Cys Pro Gln
20 25 30

Pro Leu Ala Phe Ser Ser Val Glu Thr Met Glu Gly Pro Pro Arg Arg
35 40 45

Thr Cys Arg Ser Pro Glu Pro Gly Pro Ser Ser Ser Ile Gly Ser Pro
50 55 60

Gln Ala Ser Ser Pro Pro Arg Pro Asn His Tyr Leu Leu Ile Asp Thr
65 70 75 80

Gln Gly Val Pro Tyr Thr Val Leu Val Asp Glu Glu Ser Gln Arg Glu
85 90 95

Pro Gly Ala Ser Gly Ala Pro Gly Gln Lys Lys Cys Tyr Ser Cys Pro
100 105 110

Val Cys Ser Arg Val Phe Glu Tyr Met Ser Tyr Leu Gln Arg His Ser
115 120 125

Ile Thr His Ser Glu Val Lys Pro Phe Glu Cys Asp Ile Cys Gly Lys
130 135 140

Ala Phe Lys Arg Ala Ser His Leu Ala Arg His His Ser Ile His Leu
145 150 155 160

Ala Gly Gly Gly Arg Pro His Gly Cys Pro Leu Cys Pro Arg Arg Phe
165 170 175

Arg Asp Ala Gly Glu Leu Ala Gln His Ser Arg Val His Ser Gly Glu
180 185 190

Arg Pro Phe Gln Cys Pro His Cys Pro Arg Arg Phe Met Glu Gln Asn
195 200 205

Thr Leu Gln Lys His Thr Arg Trp Lys His Pro
210 215

1440

<210> 1381

<211> 275

<212> PRT

<213> Homo sapiens

<400> 1381

Gly Val Ala Leu Phe Lys Ser Ala Ala Gly Asp Gln Pro Thr Ala Ala
 1 5 10 15

Cys Ile Cys Ile Gln Arg Gln Val Pro Pro Val Pro Ala Ala Arg Ala
 20 25 30

Pro Gln Ser Arg Thr Arg Ser Ala Gln Ala Lys Leu Ala Leu Thr Met
 35 40 45

Pro Val Lys Gly Gly Thr Lys Cys Ile Lys Tyr Leu Leu Phe Gly Phe
 50 55 60

Asn Phe Ile Phe Trp Leu Ala Gly Ile Ala Val Leu Ala Ile Gly Leu
 65 70 75 80

Trp Leu Arg Phe Asp Ser Gln Thr Lys Ser Ile Phe Glu Gln Glu Thr
 85 90 95

Asn Asn Asn Asn Ser Ser Phe Tyr Thr Gly Val Tyr Ile Leu Ile Gly
 100 105 110

Ala Gly Ala Leu Met Met Leu Val Gly Phe Leu Gly Cys Cys Gly Ala
 115 120 125

Val Gln Glu Ser Gln Cys Met Leu Gly Leu Phe Phe Gly Phe Leu Leu
 130 135 140

Val Ile Phe Ala Ile Glu Ile Ala Ala Ala Ile Trp Gly Tyr Ser His
 145 150 155 160

Lys Asp Glu Val Ile Lys Glu Val Gln Glu Phe Tyr Lys Asp Thr Tyr
 165 170 175

Asn Lys Leu Lys Thr Lys Asp Glu Pro Gln Arg Glu Thr Leu Lys Ala
 180 185 190

Ile His Tyr Ala Leu Asn Cys Cys Gly Leu Ala Gly Gly Val Glu Gln
 195 200 205

Phe Ile Ser Asp Ile Cys Pro Lys Lys Asp Val Leu Glu Thr Phe Thr
 210 215 220

[44]

Val Lys Ser Cys Pro Asp Ala Ile Lys Glu Val Phe Asp Asn Lys Phe
 225 230 235 240

His Ile Ile Gly Ala Val Gly Ile Gly Ile Ala Val Val Met Ile Phe
 245 250 255

Gly Met Ile Phe Ser Met Ile Leu Cys Cys Ala Ile Arg Arg Asn Arg
 260 265 270

Glu Met Val
 275

<210> 1382

<211> 766

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (13)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (123)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1382

Pro Cys Trp Glu Leu Val Gly Pro Pro Gly Trp Gln Xaa Ile Arg Ala
 1 5 10 15

Xaa Pro Ala Thr Val His Arg Ala Glu Ile Leu Ser Phe Pro Arg Ser
 20 25 30

Lys Thr Ser Glu Pro Ala Lys Arg Gly Arg Thr Ala Ser Ala Ala Met
 35 40 45

Ala Leu Lys Asp Tyr Ala Leu Glu Lys Glu Lys Val Lys Lys Phe Leu
 50 55 60

Gln Glu Phe Tyr Gln Asp Asp Glu Leu Gly Lys Lys Gln Phe Lys Tyr
 65 70 75 80

Gly Asn Gln Leu Val Arg Leu Ala His Arg Glu Gln Val Ala Leu Tyr

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| 85 | | | | | | | | | | 90 | | | | 95 | | | |
| Val | Asp | Leu | Asp | Asp | Val | Ala | Glu | Asp | Asp | Pro | Glu | Leu | Val | Asp | Ser | | |
| | | | 100 | | | | | 105 | | | | 110 | | | | | |
| Ile | Cys | Glu | Asn | Ala | Arg | Arg | Tyr | Ala | Lys | Xaa | Phe | Ala | Asp | Ala | Val | | |
| | | | 115 | | | | | 120 | | | | 125 | | | | | |
| Gln | Glu | Leu | Leu | Pro | Gln | Tyr | Lys | Glu | Arg | Glu | Val | Val | Asn | Lys | Asp | | |
| | | | 130 | | | | | 135 | | | | 140 | | | | | |
| Val | Leu | Asp | Val | Tyr | Ile | Glu | His | Arg | Leu | Met | Met | Glu | Gln | Arg | Ser | | |
| 145 | | | | | | | 150 | | | | 155 | | | 160 | | | |
| Arg | Asp | Pro | Gly | Met | Val | Arg | Ser | Pro | Gln | Asn | Gln | Tyr | Pro | Ala | Glu | | |
| | | | 165 | | | | | | | 170 | | | 175 | | | | |
| Leu | Met | Arg | Arg | Phe | Glu | Leu | Tyr | Phe | Gln | Gly | Pro | Ser | Ser | Asn | Lys | | |
| | | | 180 | | | | | | | 185 | | | 190 | | | | |
| Pro | Arg | Val | Ile | Arg | Glu | Val | Arg | Ala | Asp | Ser | Val | Gly | Lys | Leu | Val | | |
| | | | 195 | | | | | | | 200 | | | 205 | | | | |
| Thr | Val | Arg | Gly | Ile | Val | Thr | Arg | Val | Ser | Glu | Val | Lys | Pro | Lys | Met | | |
| 210 | | | | | | | 215 | | | | | | 220 | | | | |
| Val | Val | Ala | Thr | Tyr | Thr | Cys | Asp | Gln | Cys | Gly | Ala | Glu | Thr | Tyr | Gln | | |
| 225 | | | | | | | 230 | | | | | | 235 | | | | |
| Pro | Ile | Gln | Ser | Pro | Thr | Phe | Met | Pro | Leu | Ile | Met | Cys | Pro | Ser | Gln | | |
| | | | 245 | | | | | | | 250 | | | 255 | | | | |
| Glu | Cys | Gln | Thr | Asn | Arg | Ser | Gly | Gly | Arg | Leu | Tyr | Leu | Gln | Thr | Arg | | |
| | | | 260 | | | | | | | 265 | | | 270 | | | | |
| Gly | Ser | Arg | Phe | Ile | Lys | Phe | Gln | Glu | Met | Lys | Met | Gln | Glu | His | Ser | | |
| | | | 275 | | | | | | | 280 | | | 285 | | | | |
| Asp | Gln | Val | Pro | Val | Gly | Asn | Ile | Pro | Arg | Ser | Ile | Thr | Val | Leu | Val | | |
| 290 | | | | | | | 295 | | | | | | 300 | | | | |
| Glu | Gly | Glu | Asn | Thr | Arg | Ile | Ala | Gln | Pro | Gly | Asp | His | Val | Ser | Val | | |
| 305 | | | | | | | 310 | | | | | | 315 | | | | |
| Thr | Gly | Ile | Phe | Leu | Pro | Ile | Leu | Arg | Thr | Gly | Phe | Arg | Gln | Val | Val | | |
| | | | 325 | | | | | | | 330 | | | 335 | | | | |
| Gln | Gly | Leu | Leu | Ser | Glu | Thr | Tyr | Leu | Glu | Ala | His | Arg | Ile | Val | Lys | | |
| | | | 340 | | | | | | | 345 | | | 350 | | | | |
| Met | Asn | Lys | Ser | Glu | Asp | Asp | Glu | Ser | Gly | Ala | Gly | Glu | Leu | Thr | Arg | | |

1443

| | | |
|---|-----|-----|
| 355 | 360 | 365 |
| Glu Glu Leu Arg Gln Ile Ala Glu Glu Asp Phe Tyr Glu Lys Leu Ala | | |
| 370 | 375 | 380 |
| Ala Ser Ile Ala Pro Glu Ile Tyr Gly His Glu Asp Val Lys Lys Ala | | |
| 385 | 390 | 395 |
| 400 | | |
| Leu Leu Leu Leu Leu Val Gly Gly Val Asp Gln Ser Pro Arg Gly Met | | |
| 405 | 410 | 415 |
| Lys Ile Arg Gly Asn Ile Asn Ile Cys Leu Met Gly Asp Pro Gly Val | | |
| 420 | 425 | 430 |
| Ala Lys Ser Gln Leu Leu Ser Tyr Ile Asp Arg Leu Ala Pro Arg Ser | | |
| 435 | 440 | 445 |
| Gln Tyr Thr Thr Gly Arg Gly Ser Ser Gly Val Gly Leu Thr Ala Ala | | |
| 450 | 455 | 460 |
| Val Leu Arg Asp Ser Val Ser Gly Glu Leu Thr Leu Glu Gly Gly Ala | | |
| 465 | 470 | 475 |
| 480 | | |
| Leu Val Leu Ala Asp Gln Gly Val Cys Cys Ile Asp Glu Phe Asp Lys | | |
| 485 | 490 | 495 |
| Met Ala Glu Ala Asp Arg Thr Ala Ile His Glu Val Met Glu Gln Gln | | |
| 500 | 505 | 510 |
| Thr Ile Ser Ile Ala Lys Ala Gly Ile Leu Thr Thr Leu Asn Ala Arg | | |
| 515 | 520 | 525 |
| Cys Ser Ile Leu Ala Ala Ala Asn Pro Ala Tyr Gly Arg Tyr Asn Pro | | |
| 530 | 535 | 540 |
| Arg Arg Ser Leu Glu Gln Asn Ile Gln Leu Pro Ala Ala Leu Leu Ser | | |
| 545 | 550 | 555 |
| 560 | | |
| Arg Phe Asp Leu Leu Trp Leu Ile Gln Asp Arg Pro Asp Arg Asp Asn | | |
| 565 | 570 | 575 |
| Asp Leu Arg Leu Ala Gln His Ile Thr Tyr Val His Gln His Ser Arg | | |
| 580 | 585 | 590 |
| Gln Pro Pro Ser Gln Phe Glu Pro Leu Asp Met Lys Leu Met Arg Arg | | |
| 595 | 600 | 605 |
| Tyr Ile Ala Met Cys Arg Glu Lys Gln Pro Met Val Pro Glu Ser Leu | | |
| 610 | 615 | 620 |
| Ala Asp Tyr Ile Thr Ala Ala Tyr Val Glu Met Arg Arg Glu Ala Trp | | |

1444

| | | | | | | |
|-----------------|-------------------------|---------------------|-------------|-----|-----|-----|
| 625 | | 630 | | 635 | | 640 |
| Ala Ser Lys Asp | Ala Thr Tyr Thr Ser | Ala Arg Thr Leu Leu | Ala Ile | | | |
| | 645 | | 650 | | 655 | |
| Leu Arg Leu Ser | Thr Ala Leu Ala Arg | Leu Arg Met Val | Asp Val Val | | | |
| | 660 | | 665 | | 670 | |
| Glu Lys Glu Asp | Val Asn Glu Ala Ile Arg | Leu Met Glu Met | Ser Lys | | | |
| | 675 | | 680 | | 685 | |
| Asp Ser Leu Leu | Gly Asp Lys Gly Gln Thr | Ala Arg Thr Gln | Arg Pro | | | |
| | 690 | | 695 | | 700 | |
| Ala Asp Val Ile | Phe Ala Thr Val Arg | Glu Leu Val Ser | Gly Gly Arg | | | |
| 705 | | 710 | | 715 | | 720 |
| Ser Val Arg Phe | Ser Glu Ala Glu Gln | Arg Cys Val Ser | Arg Gly Phe | | | |
| | 725 | | 730 | | 735 | |
| Thr Pro Ala Gln | Phe Gln Ala Ala Leu | Asp Glu Tyr Glu | Glu Leu Asn | | | |
| | 740 | | 745 | | 750 | |
| Val Trp Gln Val | Asn Ala Ser Arg Thr | Arg Ile Thr Phe | Val | | | |
| | 755 | | 760 | | 765 | |

<210> 1383

<211> 296

<212> PRT

<213> Homo sapiens

<400> 1383

| | | | |
|-----------------|-----------------|-----------------|-----------------|
| Phe Arg Pro Gly | Ser Pro Arg Gln | Pro Arg Ala Gln | Pro Ile Ser Ala |
| 1 | 5 | 10 | 15 |
| Pro Asp Cys Thr | Arg Ala Met Val | Gly Arg Arg Ala | Leu Ile Val Leu |
| | 20 | 25 | 30 |
| Ala His Ser Glu | Arg Thr Ser Phe | Asn Tyr Ala Met | Lys Glu Ala Ala |
| | 35 | 40 | 45 |
| Ala Ala Ala Leu | Lys Lys Lys Gly | Trp Glu Val Val | Glu Ser Asp Leu |
| | 50 | 55 | 60 |
| Tyr Ala Met Asn | Phe Asn Pro Ile | Ile Ser Arg Lys | Asp Ile Thr Gly |
| | 65 | 70 | 75 |
| Lys Leu Lys Asp | Pro Ala Asn Phe | Gln Tyr Pro Ala | Glu Ser Val Leu |
| | 85 | 90 | 95 |

1445

Ala Tyr Lys Glu Gly His Leu Ser Pro Asp Ile Val Ala Glu Gln Lys
 100 105 110
 Lys Leu Glu Ala Ala Asp Leu Val Ile Phe Gln Phe Pro Leu Gln Trp
 115 120 125
 Phe Gly Val Pro Ala Ile Leu Lys Gly Trp Phe Glu Arg Val Phe Ile
 130 135 140
 Gly Glu Phe Ala Tyr Thr Tyr Ala Ala Met Tyr Asp Lys Gly Pro Phe
 145 150 155 160
 Arg Ser Lys Lys Ala Val Leu Ser Ile Thr Thr Gly Gly Ser Gly Ser
 165 170 175
 Met Tyr Ser Leu Gln Gly Ile His Gly Asp Met Asn Val Ile Leu Trp
 180 185 190
 Pro Ile Gln Ser Gly Ile Leu His Phe Cys Gly Phe Gln Val Leu Glu
 195 200 205
 Pro Gln Leu Thr Tyr Ser Ile Gly His Thr Pro Ala Asp Ala Arg Ile
 210 215 220
 Gln Ile Leu Glu Gly Trp Lys Lys Arg Leu Glu Asn Ile Trp Asp Glu
 225 230 235 240
 Thr Pro Leu Tyr Phe Ala Pro Ser Ser Leu Phe Asp Leu Asn Phe Gln
 245 250 255
 Ala Gly Phe Leu Met Lys Lys Glu Val Gln Asp Glu Glu Lys Asn Lys
 260 265 270
 Lys Phe Gly Leu Ser Val Gly His His Leu Gly Lys Ser Ile Pro Thr
 275 280 285
 Asp Asn Gln Ile Lys Ala Arg Lys
 290 295

<210> 1384

<211> 165

<212> PRT

<213> Homo sapiens

<400> 1384

Asp Pro Arg Thr Met Asn Leu Ala Ile Ser Ile Ala Leu Leu Leu Thr
 1 5 10 15

1446

Val Leu Gln Val Ser Arg Gly Gln Lys Val Thr Ser Leu Thr Ala Cys
 20 25 30
 Leu Val Asp Gln Ser Leu Arg Leu Asp Cys Arg His Glu Asn Thr Ser
 35 40 45
 Ser Ser Pro Ile Gln Tyr Glu Phe Ser Leu Thr Arg Glu Thr Lys Lys
 50 55 60
 His Val Leu Phe Gly Thr Val Gly Val Pro Glu His Thr Tyr Arg Ser
 65 70 75 80
 Arg Thr Asn Phe Thr Ser Lys Tyr Asn Met Lys Val Leu Tyr Leu Ser
 85 90 95
 Ala Phe Thr Ser Lys Asp Glu Gly Thr Tyr Thr Cys Ala Leu His His
 100 105 110
 Ser Gly His Ser Pro Pro Ile Ser Ser Gln Asn Val Thr Val Leu Arg
 115 120 125
 Asp Lys Leu Val Lys Cys Glu Gly Ile Ser Leu Leu Ala Gln Asn Thr
 130 135 140
 Ser Trp Leu Leu Leu Leu Leu Leu Ser Leu Ser Leu Leu Gln Ala Thr
 145 150 155 160
 Asp Phe Met Ser Leu
 165

<210> 1385

<211> 399

<212> PRT

<213> Homo sapiens

<400> 1385

His Glu Arg Thr Pro Ser Arg Pro Gln Pro Asp Thr Pro Arg Gly Pro
 1 5 10 15
 Pro Val Ser Arg Gly Cys Ser Pro Arg His Gly Thr Gly Pro Arg Leu
 20 25 30
 Thr Met Ala Ala Ala Arg His Ser Thr Leu Asp Phe Met Leu Gly Ala
 35 40 45
 Lys Ala Asp Gly Glu Thr Ile Leu Lys Gly Leu Gln Ser Ile Phe Gln
 50 55 60
 Glu Gln Gly Met Ala Glu S r Val His Thr Trp Gln Asp His Gly Tyr

1447

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 65 | | 70 | | 75 | | 80 | | | | | | | | | |
| Leu | Ala | Thr | Tyr | Thr | Asn | Lys | Asn | Gly | Ser | Phe | Ala | Asn | Leu | Arg | Ile |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Tyr | Pro | His | Gly | Leu | Val | Leu | Leu | Asp | Leu | Gln | Ser | Tyr | Asp | Gly | Asp |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ala | Gln | Gly | Lys | Glu | Glu | Ile | Asp | Ser | Ile | Leu | Asn | Lys | Val | Glu | Glu |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Arg | Met | Lys | Glu | Leu | Ser | Gln | Asp | Ser | Thr | Gly | Arg | Val | Lys | Arg | Leu |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Pro | Pro | Ile | Val | Arg | Gly | Gly | Ala | Ile | Asp | Arg | Tyr | Trp | Pro | Thr | Ala |
| 145 | | | | | 150 | | | | 155 | | | | | | 160 |
| Asp | Gly | Arg | Leu | Val | Glu | Tyr | Asp | Ile | Asp | Glu | Val | Val | Tyr | Asp | Glu |
| | | | 165 | | | | | 170 | | | | | 175 | | |
| Asp | Ser | Pro | Tyr | Gln | Asn | Ile | Lys | Ile | Leu | His | Ser | Lys | Gln | Phe | Gly |
| | | 180 | | | | | 185 | | | | | | 190 | | |
| Asn | Ile | Leu | Ile | Leu | Ser | Gly | Asp | Val | Asn | Leu | Ala | Glu | Ser | Asp | Leu |
| | 195 | | | | | 200 | | | | | | 205 | | | |
| Ala | Tyr | Thr | Arg | Ala | Ile | Met | Gly | Ser | Gly | Lys | Glu | Asp | Tyr | Thr | Gly |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Lys | Asp | Val | Leu | Ile | Leu | Gly | Gly | Gly | Asp | Gly | Gly | Ile | Leu | Cys | Glu |
| 225 | | | | 230 | | | | | 235 | | | | | 240 | |
| Ile | Val | Lys | Leu | Lys | Pro | Lys | Met | Val | Thr | Met | Val | Glu | Ile | Asp | Gln |
| | | | 245 | | | | | 250 | | | | | | 255 | |
| Met | Val | Ile | Asp | Gly | Cys | Lys | Lys | Tyr | Met | Arg | Lys | Thr | Cys | Gly | Asp |
| | | 260 | | | | | | 265 | | | | | 270 | | |
| Val | Leu | Asp | Asn | Leu | Lys | Gly | Asp | Cys | Tyr | Gln | Val | Leu | Ile | Glu | Asp |
| | 275 | | | | | 280 | | | | | 285 | | | | |
| Cys | Ile | Pro | Val | Leu | Lys | Arg | Tyr | Ala | Lys | Glu | Gly | Arg | Glu | Phe | Asp |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Tyr | Val | Ile | Asn | Asp | Leu | Thr | Ala | Val | Pro | Ile | Ser | Thr | Ser | Pro | Glu |
| 305 | | | | | 310 | | | | 315 | | | | | | 320 |
| Glu | Asp | Ser | Thr | Trp | Glu | Phe | Leu | Arg | Leu | Ile | Leu | Asp | Leu | Ser | Met |
| | | | 325 | | | | | 330 | | | | | 335 | | |
| Lys | Val | Leu | Lys | Gln | Asp | Gly | Lys | Tyr | Phe | Thr | Gln | Gly | Asn | Cys | Val |

1448

340 345 350
 Asn Leu Thr Glu Ala Leu Ser Leu Tyr Glu Glu Gln Leu Gly Arg Leu
 355 360 365
 Tyr Cys Pro Val Glu Phe Ser Lys Glu Ile Val Cys Val Pro Ser Tyr
 370 375 380
 Leu Glu Leu Trp Val Phe Tyr Thr Val Trp Lys Lys Ala Lys Pro
 385 390 395

<210> 1386

<211> 287

<212> PRT

<213> Homo sapiens

<400> 1386

Phe Asp Cys Arg Asp Val Ala Phe Thr Val Gly Glu Gly Glu Asp His
 1 5 10 15
 Asp Ile Pro Ile Gly Ile Asp Lys Ala Leu Glu Lys Met Gln Arg Glu
 20 25 30
 Glu Gln Cys Ile Leu Tyr Leu Gly Pro Arg Tyr Gly Phe Gly Glu Ala
 35 40 45
 Gly Lys Pro Lys Phe Gly Ile Glu Pro Asn Ala Glu Leu Ile Tyr Glu
 50 55 60
 Val Thr Leu Lys Ser Phe Glu Lys Ala Lys Glu Ser Trp Glu Met Asp
 65 70 75 80
 Thr Lys Glu Lys Leu Glu Gln Ala Ala Ile Val Lys Glu Lys Gly Thr
 85 90 95
 Val Tyr Phe Lys Gly Gly Lys Tyr Met Gln Ala Val Ile Gln Tyr Gly
 100 105 110
 Lys Ile Val Ser Trp Leu Glu Met Glu Tyr Gly Leu Ser Glu Lys Glu
 115 120 125
 Ser Lys Ala Ser Glu Ser Phe Leu Leu Ala Ala Phe Leu Asn Leu Ala
 130 135 140
 Met Cys Tyr Leu Lys Leu Arg Glu Tyr Thr Lys Ala Val Glu Cys Cys
 145 150 155 160
 Asp Lys Ala Leu Gly Leu Asp Ser Ala Asn Glu Lys Gly Leu Tyr Arg
 165 170 175

1449

Arg Gly Glu Ala Gln Leu Leu Met Asn Glu Phe Glu Ser Ala Lys Gly
 180 185 190

Asp Phe Glu Lys Val Leu Glu Val Asn Pro Gln Asn Lys Ala Ala Arg
 195 200 205

Leu Gln Ile Ser Met Cys Gln Lys Lys Ala Lys Glu His Asn Glu Arg
 210 215 220

Asp Arg Arg Tyr Thr Pro Thr Cys Ser Arg Ser Leu Gln Ser Arg Met
 225 230 235 240

Pro Arg Lys Arg Pro Ile Lys Gln Trp Ala Arg Arg Leu Gln Lys Gly
 245 250 255

Ser Leu Met Lys Lys Glu Gln Thr Val Lys Gln Trp Lys Lys Arg Asn
 260 265 270

Leu Arg Ala Thr Tyr Asp Ala Thr Pro Arg Arg Glu Glu Ser Gln
 275 280 285

<210> 1387

<211> 206

<212> PRT

<213> Homo sapiens

<400> 1387

Arg Leu Pro Ile Arg Gln Ser Ala Ala Asp Gly Leu Arg Ala Arg Pro
 1 5 10 15

Leu Gly Ser Asn Thr Ala Pro Ala Leu Arg Val Met Val Gln Ala Trp
 20 25 30

Tyr Met Asp Asp Ala Pro Gly Asp Pro Arg Gln Pro His Arg Pro Asp
 35 40 45

Pro Gly Arg Pro Val Gly Leu Glu Gln Leu Arg Arg Leu Gly Val Leu
 50 55 60

Tyr Trp Lys Leu Asp Ala Asp Lys Tyr Glu Asn Asp Pro Glu Leu Glu
 65 70 75 80

Lys Ile Arg Arg Glu Arg Asn Tyr Ser Trp Met Asp Ile Ile Thr Ile
 85 90 95

Cys Lys Asp Lys Leu Pro Asn Tyr Glu Glu Lys Ile Lys Met Phe Tyr
 100 105 110

1450

Glu Glu His Leu His Leu Asp Asp Glu Ile Arg Tyr Ile Leu Asp Gly
 115 120 125

Ser Gly Tyr Phe Asp Val Arg Asp Lys Glu Asp Gln Trp Ile Arg Ile
 130 135 140

Phe Met Glu Lys Gly Asp Met Val Thr Leu Pro Ala Gly Ile Tyr His
 145 150 155 160

Arg Phe Thr Val Asp Glu Lys Asn Tyr Thr Lys Ala Met Arg Leu Phe
 165 170 175

Val Gly Glu Pro Val Trp Thr Ala Tyr Asn Arg Pro Ala Asp His Phe
 180 185 190

Glu Ala Arg Gly Gln Tyr Val Lys Phe Leu Ala Gln Thr Ala
 195 200 205

<210> 1388

<211> 394

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1388

Phe His Xaa Ala Ala His Tyr Ser Leu Pro Asp Gly Arg His Gly Arg
 1 5 10 15

Leu Asp Ser Pro Thr Phe His Leu Thr Leu His Tyr Pro Thr Glu His
 20 25 30

Val Gln Phe Trp Val Gly Ser Pro Ser Thr Pro Ala Gly Trp Val Arg
 35 40 45

Glu Gly Asp Thr Val Gln Leu Leu Cys Arg Gly Asp Gly Ser Pro Ser
 50 55 60

Pro Glu Tyr Thr Leu Phe Arg Leu Gln Asp Glu Gln Glu Glu Val Leu
 65 70 75 80

Asn Val Asn Leu Glu Gly Asn Leu Thr Leu Glu Gly Val Thr Arg Gly
 85 90 95

Gln Ser Gly Thr Tyr Gly Cys Arg Val Glu Asp Tyr Asp Ala Ala Asp
 100 105 110

1451

Asp Val Gln Leu Ser Lys Thr Leu Glu Leu Arg Val Ala Tyr Leu Asp
 115 120 125

Pro Leu Glu Leu Ser Glu Gly Lys Val Leu Ser Leu Pro Leu Asn Ser
 130 135 140

Ser Ala Val Val Asn Cys Ser Val His Gly Leu Pro Thr Pro Ala Leu
 145 150 155 160

Arg Trp Thr Lys Asp Ser Thr Pro Leu Gly Asp Gly Pro Met Leu Ser
 165 170 175

Leu Ser Ser Ile Thr Phe Asp Ser Asn Gly Thr Tyr Val Cys Glu Ala
 180 185 190

Ser Leu Pro Thr Val Pro Val Leu Ser Arg Thr Gln Asn Phe Thr Leu
 195 200 205

Leu Val Gln Gly Ser Pro Glu Leu Lys Thr Ala Glu Ile Glu Pro Lys
 210 215 220

Ala Asp Gly Ser Trp Arg Glu Gly Asp Glu Val Thr Leu Ile Cys Ser
 225 230 235 240

Ala Arg Gly His Pro Asp Pro Lys Leu Ser Trp Ser Gln Leu Gly Gly
 245 250 255

Ser Pro Ala Glu Pro Ile Pro Gly Arg Gln Gly Trp Val Ser Ser Ser
 260 265 270

Leu Thr Leu Lys Val Thr Ser Ala Leu Ser Arg Asp Gly Ile Ser Cys
 275 280 285

Glu Ala Ser Asn Pro His Gly Asn Lys Arg His Val Phe His Phe Gly
 290 295 300

Thr Val Ser Pro Gln Thr Ser Gln Ala Gly Val Ala Val Met Ala Val
 305 310 315 320

Ala Val Ser Val Gly Leu Leu Leu Leu Val Val Ala Val Phe Tyr Cys
 325 330 335

Val Arg Arg Lys Gly Gly Pro Cys Cys Arg Gln Arg Arg Glu Lys Gly
 340 345 350

Ala Pro Pro Pro Gly Glu Pro Gly Leu Ser His Ser Gly Ser Glu Gln
 355 360 365

Pro Glu Gln Thr Gly Leu Leu Met Gly Gly Ala Ser Gly Gly Ala Arg
 370 375 380

1452

Gly Gly Ser Gly Gly Phe Gly Asp Glu Cys
385 390

<210> 1389

<211> 264

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (16)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1389

Val Gly Cys Arg Trp Ser Arg Val Gly Pro Gln Asn Pro Arg Val Xaa
1 5 10 15

Leu Pro Pro Pro Thr Leu Ala Met Phe Leu Thr Arg Ser Glu Tyr Asp
20 25 30

Arg Gly Val Asn Thr Phe Ser Pro Glu Gly Arg Leu Phe Gln Val Glu
35 40 45

Tyr Ala Ile Glu Ala Ile Lys Leu Gly Ser Thr Ala Ile Gly Ile Gln
50 55 60

Thr Ser Glu Gly Val Cys Leu Ala Val Glu Lys Arg Ile Thr Ser Pro
65 70 75 80

Leu Met Glu Pro Ser Ser Ile Glu Lys Ile Val Glu Ile Asp Ala His
85 90 95

Ile Gly Cys Ala Met Ser Gly Leu Ile Ala Asp Ala Lys Thr Leu Ile
100 105 110

Asp Lys Ala Arg Val Glu Thr Gln Asn His Trp Phe Thr Tyr Asn Glu
115 120 125

Thr Met Thr Val Glu Ser Val Thr Gln Ala Val Ser Asn Leu Ala Leu
130 135 140

Gln Phe Gly Glu Glu Asp Ala Asp Pro Gly Ala Met Ser Arg Pro Phe
145 150 155 160

Gly Val Ala Leu Leu Phe Gly Gly Val Asp Glu Lys Gly Pro Gln Leu
165 170 175

Phe His Met Asp Pr Ser Gly Thr Phe Val Gln Cys Asp Ala Arg Ala

1453

180 185 190
 Ile Gly Ser Ala Ser Glu Gly Ala Gln Ser Ser Leu Gln Glu Val Tyr
 195 200 205
 His Lys Ser Met Thr Leu Lys Glu Ala Ile Lys Ser Ser Leu Ile Ile
 210 215 220
 Leu Lys Gln Val Met Glu Glu Lys Leu Asn Ala Thr Asn Ile Glu Leu
 225 230 235 240
 Ala Thr Val Gln Pro Gly Gln Asn Phe His Met Phe Thr Lys Glu Glu
 245 250 255
 Leu Glu Glu Val Ile Lys Asp Ile
 260

<210> 1390

<211> 178

<212> PRT

<213> Homo sapiens

<400> 1390

Gln Lys Leu Glu Leu His Arg Gly Gly Gly Arg Ser Arg Thr Ser Gly
 1 5 10 15
 Ser Pro Gly Leu Phe Gly Leu Ser Ala Arg Arg Leu Leu Ala Ala Ala
 20 25 30
 Ala Thr Arg Gly Leu Pro Ala Ala Arg Val Arg Trp Glu Ser Ser Phe
 35 40 45
 Ser Arg Thr Val Val Ala Pro Ser Ala Val Ala Gly Lys Arg Pro Pro
 50 55 60
 Glu Pro Thr Thr Pro Trp Gln Glu Asp Pro Glu Pro Glu Asp Glu Asn
 65 70 75 80
 Leu Tyr Glu Lys Asn Pro Asp Ser His Gly Tyr Asp Lys Asp Pro Val
 85 90 95
 Leu Asp Val Trp Asn Met Arg Leu Val Phe Phe Phe Gly Val Ser Ile
 100 105 110
 Ile Leu Val Leu Gly Ser Thr Phe Val Ala Tyr Leu Pro Asp Tyr Arg
 115 120 125
 Cys Thr Gly Cys Pro Arg Ala Trp Asp Gly Met Lys Glu Trp Ser Arg
 130 135 140

1454

Arg Glu Ala Glu Arg Leu Val Lys Tyr Arg Glu Ala Asn Gly Leu Pro
 145 150 155 160

Ile Met Glu Ser Asn Cys Phe Asp Pro Ser Lys Ile Gln Leu Pro Glu
 165 170 175

Asp Glu

<210> 1391

<211> 133

<212> PRT

<213> Homo sapiens

<400> 1391

Val Ile Ile Thr Ser Ile Asn Gln Lys Ile Phe His Pro Leu Arg Ala
 1 5 10 15

Leu Lys Leu Ser Thr Ser Ala Thr Phe Leu Ile Leu Val Leu Gly Gly
 20 25 30

His Val Tyr Gly Leu Phe Asn Phe His Val Pro Tyr Cys Pro Leu Pro
 35 40 45

Ala Val Ala Lys Ala Ser Cys Phe Ser Pro Thr Glu Glu Thr Val Leu
 50 55 60

Cys His Asp Asp Arg Ala Leu Leu Gly Leu Val Phe Leu Val Phe Pro
 65 70 75 80

Phe Trp Gln Cys Gly Leu Gln Glu Leu Asp Val Tyr Ala Gln Gly Ile
 85 90 95

Glu Phe Thr Leu Lys Leu Gly Asn Gly Val Phe Asn Leu Cys Ser Cys
 100 105 110

Leu Phe Ile Leu Leu Phe Ile Phe Cys His Pro Ala Leu Tyr Trp Ala
 115 120 125

Asn Asn Glu Ile Lys
 130

<210> 1392

<211> 401

<212> PRT

<213> Homo sapiens

1455

<400> 1392

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Thr | Val | Leu | Lys | Lys | Met | Asp | Glu | Glu | Pro | Glu | Arg | Thr | Lys | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Trp | Glu | Gly | Gly | Tyr | Glu | Arg | Thr | Trp | Glu | Ile | Leu | Lys | Glu | Asp | Glu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Gly | Ser | Leu | Lys | Ala | Thr | Ile | Glu | Asp | Ile | Leu | Phe | Lys | Ala | Lys |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Arg | Lys | Arg | Val | Phe | Glu | His | His | Gly | Gln | Val | Arg | Leu | Gly | Met | Met |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Arg | His | Leu | Tyr | Val | Val | Val | Asp | Gly | Ser | Arg | Thr | Met | Glu | Asp | Gln |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Asp | Leu | Lys | Pro | Asn | Arg | Leu | Thr | Cys | Thr | Leu | Lys | Leu | Leu | Glu | Tyr |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Phe | Val | Glu | Glu | Tyr | Phe | Asp | Gln | Asn | Pro | Ile | Ser | Gln | Ile | Gly | Ile |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ile | Val | Thr | Lys | Ser | Lys | Arg | Ala | Glu | Lys | Leu | Thr | Glu | Leu | Ser | Gly |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Asn | Pro | Arg | Lys | His | Ile | Thr | Ser | Leu | Lys | Lys | Ala | Val | Asp | Met | Thr |
| | 130 | | | | | 135 | | | | | | 140 | | | |
| Cys | His | Gly | Glu | Pro | Ser | Leu | Tyr | Asn | Ser | Leu | Ser | Ile | Ala | Met | Gln |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Thr | Leu | Lys | His | Met | Pro | Gly | His | Thr | Ser | Arg | Glu | Val | Leu | Ile | Ile |
| | | | 165 | | | | | 170 | | | | | 175 | | |
| Phe | Ser | Ser | Leu | Thr | Thr | Cys | Asp | Pro | Ser | Asn | Ile | Tyr | Asp | Leu | Ile |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Lys | Thr | Leu | Lys | Ala | Ala | Lys | Ile | Arg | Val | Ser | Val | Ile | Gly | Leu | Ser |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Ala | Glu | Val | Arg | Val | Cys | Thr | Val | Leu | Ala | Arg | Glu | Thr | Gly | Gly | Thr |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Tyr | His | Val | Ile | Leu | Asp | Glu | Ser | His | Tyr | Lys | Glu | Leu | Leu | Thr | His |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| His | Val | Ser | Pro | Pro | Pro | Ala | Ser | Ser | Ser | Ser | Glu | Cys | Ser | Leu | Ile |
| | | | 245 | | | | | 250 | | | | | 255 | | |
| Arg | Met | Gly | Phe | Pro | Gln | His | Thr | Ile | Ala | Ser | Leu | Ser | Asp | Gln | Asp |

1456

260 265 270
 Ala Lys Pro Ser Phe Ser Met Ala His Leu Asp Gly Asn Thr Glu Pro
 275 280 285
 Gly Leu Thr Leu Gly Gly Tyr Phe Cys Pro Gln Cys Arg Ala Lys Tyr
 290 295 300
 Cys Glu Leu Pro Val Glu Cys Lys Ile Cys Gly Leu Thr Leu Val Ser
 305 310 315 320
 Ala Pro His Leu Ala Arg Ser Tyr His His Leu Phe Pro Leu Asp Ala
 325 330 335
 Phe Gln Glu Ile Pro Leu Glu Glu Tyr Asn Gly Glu Arg Phe Cys Tyr
 340 345 350
 Gly Cys Gln Gly Glu Leu Lys Asp Gln His Val Tyr Val Cys Ala Val
 355 360 365
 Cys Gln Asn Val Phe Cys Val Asp Cys Asp Val Phe Val His Asp Ser
 370 375 380
 Leu His Cys Cys Pro Gly Cys Ile His Lys Ile Pro Ala Pro Ser Gly
 385 390 395 400
 Val

<210> 1393

<211> 318

<212> PRT

<213> Homo sapiens

<400> 1393

Pro Glu Gly Leu Pro Arg Phe Asn Asn Asn Phe Met Ala Pro Gly Ser
 1 5 10 15
 Ala Ser Ser Pro Ser Pro Ser Phe Pro Ala Ser Arg Pro Trp Ala Ala
 20 25 30
 Val Gly Thr Met Ala Ala Ala Ala Ala Gly Pro Ser Pro Gly Ser
 35 40 45
 Gly Pro Gly Asp Ser Pro Glu Gly Pro Glu Gly Glu Ala Pro Glu Arg
 50 55 60
 Arg Arg Lys Ala His Gly Met Leu Lys Leu Tyr Tyr Gly Leu Ser Glu
 65 70 75 80

1457

Gly Glu Ala Ala Gly Arg Pro Ala Gly Pro Asp Pro Leu Asp Pro Thr
 85 90 95
 Asp Leu Asn Gly Ala His Phe Asp Pro Glu Val Tyr Leu Asp Lys Leu
 100 105 110
 Arg Arg Glu Cys Pro Leu Ala Gln Leu Met Asp Ser Glu Thr Asp Met
 115 120 125
 Val Arg Gln Ile Arg Ala Leu Asp Ser Asp Met Gln Thr Leu Val Tyr
 130 135 140
 Glu Asn Tyr Asn Lys Phe Ile Ser Ala Thr Asp Thr Ile Arg Lys Met
 145 150 155 160
 Lys Asn Asp Phe Arg Lys Met Glu Asp Glu Met Asp Arg Leu Ala Thr
 165 170 175
 Asn Met Ala Val Ile Thr Asp Phe Ser Ala Arg Ile Ser Ala Thr Leu
 180 185 190
 Gln Asp Arg His Glu Arg Ile Thr Lys Leu Ala Gly Val His Ala Leu
 195 200 205
 Leu Arg Lys Leu Gln Phe Leu Phe Glu Leu Pro Ser Arg Leu Thr Lys
 210 215 220
 Cys Val Glu Leu Gly Ala Tyr Gly Gln Ala Val Arg Tyr Gln Gly Arg
 225 230 235 240
 Ala Gln Ala Val Leu Gln Gln Tyr Gln His Leu Pro Ser Phe Arg Ala
 245 250 255
 Ile Gln Asp Asp Cys Gln Val Ile Thr Ala Arg Leu Ala Gln Gln Leu
 260 265 270
 Arg Gln Arg Phe Arg Glu Gly Gly Ser Gly Ala Pro Glu Gln Ala Glu
 275 280 285
 Cys Val Glu Leu Leu Leu Ala Leu Gly Glu Pro Ala Glu Glu Leu Cys
 290 295 300
 Glu Glu Phe Trp Arg Thr Pro Ala Ala Gly Trp Arg Arg Ser
 305 310 315

<210> 1394

<211> 1285

<212> PRT

1458

<213> Homo sapiens

<400> 1394

Phe Ser Phe Pro Leu Ser Ser Glu Pro Phe Gln Gly Ser Tyr Lys Val
 1 5 10 15
 Val Val Gln Lys Lys Ser Gly Gly Arg Thr Glu His Pro Phe Thr Val
 20 25 30
 Glu Glu Phe Val Leu Pro Lys Phe Glu Val Gln Val Thr Val Pro Lys
 35 40 45
 Ile Ile Thr Ile Leu Glu Glu Glu Met Asn Val Ser Val Cys Gly Leu
 50 55 60
 Tyr Thr Tyr Gly Lys Pro Val Pro Gly His Val Thr Val Ser Ile Cys
 65 70 75 80
 Arg Lys Tyr Ser Asp Ala Ser Asp Cys His Gly Glu Asp Ser Gln Ala
 85 90 95
 Phe Cys Glu Lys Phe Ser Gly Gln Leu Asn Ser His Gly Cys Phe Tyr
 100 105 110
 Gln Gln Val Lys Thr Lys Val Phe Gln Leu Lys Arg Lys Glu Tyr Glu
 115 120 125
 Met Lys Leu His Thr Glu Ala Gln Ile Gln Glu Glu Gly Thr Val Val
 130 135 140
 Glu Leu Thr Gly Arg Gln Ser Ser Glu Ile Thr Arg Thr Ile Thr Lys
 145 150 155 160
 Leu Ser Phe Val Lys Val Asp Ser His Phe Arg Gln Gly Ile Pro Phe
 165 170 175
 Phe Gly Gln Val Arg Leu Val Asp Gly Lys Gly Val Pro Ile Pro Asn
 180 185 190
 Lys Val Ile Phe Ile Arg Gly Asn Glu Ala Asn Tyr Tyr Ser Asn Ala
 195 200 205
 Thr Thr Asp Glu His Gly Leu Val Gln Phe Ser Ile Asn Thr Thr Asn
 210 215 220
 Val Met Gly Thr Ser Leu Thr Val Arg Val Asn Tyr Lys Asp Arg Ser
 225 230 235 240
 Pro Cys Tyr Gly Tyr Gln Trp Val Ser Glu Glu His Glu Glu Ala His
 245 250 255

1459

His Thr Ala Tyr Leu Val Phe Ser Pro Ser Lys Ser Ph Val His Leu
260 265 270

Glu Pro Met Ser His Glu Leu Pro Cys Gly His Thr Gln Thr Val Gln
275 280 285

Ala His Tyr Ile Leu Asn Gly Gly Thr Leu Leu Gly Leu Lys Lys Leu
290 295 300

Ser Phe Tyr Tyr Leu Ile Met Ala Lys Gly Gly Ile Val Arg Thr Gly
305 310 315 320

Thr His Gly Leu Leu Val Lys Gln Glu Asp Met Lys Gly His Phe Ser
325 330 335

Ile Ser Ile Pro Val Lys Ser Asp Ile Ala Pro Val Ala Arg Leu Leu
340 345 350

Ile Tyr Ala Val Leu Pro Thr Gly Asp Val Ile Gly Asp Ser Ala Lys
355 360 365

Tyr Asp Val Glu Asn Cys Leu Ala Asn Lys Val Asp Leu Ser Phe Ser
370 375 380

Pro Ser Gln Ser Leu Pro Ala Ser His Ala His Leu Arg Val Thr Ala
385 390 395 400

Ala Pro Gln Ser Val Cys Ala Leu Arg Ala Val Asp Gln Ser Val Leu
405 410 415

Leu Met Lys Pro Asp Ala Glu Leu Ser Ala Ser Ser Val Tyr Asn Leu
420 425 430

Leu Pro Glu Lys Asp Leu Thr Gly Phe Pro Gly Pro Leu Asn Asp Gln
435 440 445

Asp Asp Glu Asp Cys Ile Asn Arg His Asn Val Tyr Ile Asn Gly Ile
450 455 460

Thr Tyr Thr Pro Val Ser Ser Thr Asn Glu Lys Asp Met Tyr Ser Phe
465 470 475 480

Leu Glu Asp Met Gly Leu Lys Ala Phe Thr Asn Ser Lys Ile Arg Lys
485 490 495

Pro Lys Met Cys Pro Gln Leu Gln Gln Tyr Glu Met His Gly Pro Glu
500 505 510

Gly Leu Arg Val Gly Phe Tyr Glu Ser Asp Val Met Gly Arg Gly His
515 520 525

1460

Ala Arg Leu Val His Val Glu Glu Pro His Thr Glu Thr Val Arg Lys
 530 535 540

Tyr Phe Pro Glu Thr Trp Ile Trp Asp Leu Val Val Val Asn Ser Ala
 545 550 555 560

Gly Val Ala Glu Val Gly Val Thr Val Pro Asp Thr Ile Thr Glu Trp
 565 570 575

Lys Ala Gly Ala Phe Cys Leu Ser Glu Asp Ala Gly Leu Gly Ile Ser
 580 585 590

Ser Thr Ala Ser Leu Arg Ala Phe Gln Pro Phe Phe Val Glu Leu Thr
 595 600 605

Met Pro Tyr Ser Val Ile Arg Gly Glu Ala Phe Thr Leu Lys Ala Thr
 610 615 620

Val Leu Asn Tyr Leu Pro Lys Cys Ile Arg Val Ser Val Gln Leu Glu
 625 630 635 640

Ala Ser Pro Ala Phe Leu Ala Val Pro Val Glu Lys Glu Gln Ala Pro
 645 650 655

His Cys Ile Cys Ala Asn Gly Arg Gln Thr Val Ser Trp Ala Val Thr
 660 665 670

Pro Lys Ser Leu Gly Asn Val Asn Phe Thr Val Ser Ala Glu Ala Leu
 675 680 685

Glu Ser Gln Glu Leu Cys Gly Thr Glu Val Pro Ser Val Pro Glu His
 690 695 700

Gly Arg Lys Asp Thr Val Ile Lys Pro Leu Leu Val Glu Pro Glu Gly
 705 710 715 720

Leu Glu Lys Glu Thr Thr Phe Asn Ser Leu Leu Cys Pro Ser Gly Gly
 725 730 735

Glu Val Ser Glu Glu Leu Ser Leu Lys Leu Pro Pro Asn Val Val Glu
 740 745 750

Glu Ser Ala Arg Ala Ser Val Ser Val Leu Gly Asp Ile Leu Gly Ser
 755 760 765

Ala Met Gln Asn Thr Gln Asn Leu Leu Gln Met Pro Tyr Gly Cys Gly
 770 775 780

Glu Gln Asn Met Val Leu Phe Ala Pro Asn Ile Tyr Val Leu Asp Tyr
 785 790 795 800

1461

Leu Asn Glu Thr Gln Gln Leu Thr Pro Glu Ile Lys Ser Lys Ala Ile
 805 810 815

Gly Tyr Leu Asn Thr Gly Tyr Gln Arg Gln Leu Asn Tyr Lys His Tyr
 820 825 830

Asp Gly Ser Tyr Ser Thr Phe Gly Glu Arg Tyr Gly Arg Asn Gln Gly
 835 840 845

Asn Thr Trp Leu Thr Ala Phe Val Leu Lys Thr Phe Ala Gln Ala Arg
 850 855 860

Ala Tyr Ile Phe Ile Asp Glu Ala His Ile Thr Gln Ala Leu Ile Trp
 865 870 875 880

Leu Ser Gln Arg Gln Lys Asp Asn Gly Cys Phe Arg Ser Ser Gly Ser
 885 890 895

Leu Leu Asn Asn Ala Ile Lys Gly Gly Val Glu Asp Glu Val Thr Leu
 900 905 910

Ser Ala Tyr Ile Thr Ile Ala Leu Leu Glu Ile Pro Leu Thr Val Thr
 915 920 925

His Pro Val Val Arg Asn Ala Leu Phe Cys Leu Glu Ser Ala Trp Lys
 930 935 940

Thr Ala Gln Glu Gly Asp His Gly Ser His Val Tyr Thr Lys Ala Leu
 945 950 955 960

Leu Ala Tyr Ala Phe Ala Leu Ala Gly Asn Gln Asp Lys Arg Lys Glu
 965 970 975

Val Leu Lys Ser Leu Asn Glu Glu Ala Val Lys Lys Asp Asn Ser Val
 980 985 990

His Trp Glu Arg Pro Gln Lys Pro Lys Ala Pro Val Gly His Phe Tyr
 995 1000 1005

Glu Pro Gln Ala Pro Ser Ala Glu Val Glu Met Thr Ser Tyr Val Leu
 1010 1015 1020

Leu Ala Tyr Leu Thr Ala Gln Pro Ala Pro Thr Ser Glu Asp Leu Thr
 1025 1030 1035 1040

Ser Ala Thr Asn Ile Val Lys Trp Ile Thr Lys Gln Gln Asn Ala Gln
 1045 1050 1055

Gly Gly Phe Ser Ser Thr Gln Asp Thr Val Val Ala Leu His Ala Leu
 1060 1065 1070

1462

Ser Lys Tyr Gly Ala Ala Thr Phe Thr Arg Thr Gly Lys Ala Ala Gln
1075 1080 1085

Val Thr Ile Gln Ser Ser Gly Thr Phe Ser Ser Lys Phe Gln Val Asp
1090 1095 1100

Asn Asn Asn Arg Leu Leu Leu Gln Gln Val Ser Leu Pro Glu Leu Pro
105 1110 1115 1120

Gly Glu Tyr Ser Met Lys Val Thr Gly Glu Gly Cys Val Tyr Leu Gln
1125 1130 1135

Thr Ser Leu Lys Tyr Asn Ile Leu Pro Glu Lys Glu Glu Phe Pro Phe
1140 1145 1150

Ala Leu Gly Val Gln Thr Leu Pro Gln Thr Cys Asp Glu Pro Lys Ala
1155 1160 1165

His Thr Ser Phe Gln Ile Ser Leu Ser Val Ser Tyr Thr Gly Ser Arg
1170 1175 1180

Ser Ala Ser Asn Met Ala Ile Val Asp Val Lys Met Val Ser Gly Phe
185 1190 1195 1200

Ile Pro Leu Lys Pro Thr Val Lys Met Leu Glu Arg Ser Asn His Val
1205 1210 1215

Ser Arg Thr Glu Val Ser Ser Asn His Val Leu Ile Tyr Leu Asp Lys
1220 1225 1230

Val Ser Asn Gln Thr Leu Ser Leu Phe Phe Thr Val Leu Gln Asp Val
1235 1240 1245

Pro Val Arg Asp Leu Lys Pro Ala Ile Val Lys Val Tyr Asp Tyr Tyr
1250 1255 1260

Glu Thr Asp Glu Phe Ala Ile Ala Glu Tyr Asn Ala Pro Cys Ser Lys
265 1270 1275 1280

Asp Leu Gly Asn Ala
1285

<210> 1395

<211> 75

<212> PRT

<213> Homo sapiens

<400> 1395

Ile Thr Lys Asn Ile Tyr Ser Asp Leu Lys Asp Leu Ser Ala Lys Asn

1463

1 5 10 15
 Gln Ser Ile Ser Cys Pro Ser Ile Ile Val His Ala Cys Leu Leu Leu
 20 25 30
 Phe Thr Cys Ser Ser Ala Gln Thr Val Ser Asn Leu Gly Thr Pro Phe
 35 40 45
 Gly Ala Asp Lys Tyr Ser Ser Ala Phe Ser Pro Gln Ile Tyr Asn Asp
 50 55 60
 Phe Asn Ile Pro Lys Asn Ile Gly Ile Ser Glu
 65 70 75

<210> 1396

<211> 920

<212> PRT

<213> Homo sapiens

<400> 1396

Arg Thr Arg Gly Ile His Gly Glu Met Arg Leu Phe Val Ser Asp Gly
 1 5 10 15
 Val Pro Gly Cys Leu Pro Val Leu Ala Ala Ala Gly Arg Ala Arg Gly
 20 25 30
 Arg Ala Glu Val Leu Ile Ser Thr Val Gly Pro Glu Asp Cys Val Val
 35 40 45
 Pro Phe Leu Thr Arg Pro Lys Val Pro Val Leu Gln Leu Asp Ser Gly
 50 55 60
 Asn Tyr Leu Phe Ser Thr Ser Ala Ile Cys Arg Tyr Phe Phe Leu Leu
 65 70 75 80
 Ser Gly Trp Glu Gln Asp Asp Leu Thr Asn Gln Trp Leu Glu Trp Glu
 85 90 95
 Ala Thr Glu Leu Gln Pro Ala Leu Ser Ala Ala Leu Tyr Tyr Leu Val
 100 105 110
 Val Gln Gly Lys Lys Gly Glu Asp Val Leu Gly Ser Val Arg Arg Ala
 115 120 125
 Leu Thr His Ile Asp His Ser Leu Ser Arg Gln Asn Cys Pro Phe Leu
 130 135 140
 Ala Gly Glu Thr Glu Ser Leu Ala Asp Ile Val Leu Trp Gly Ala Leu
 145 150 155 160

1464

Tyr Pro Leu Leu Gln Asp Pro Ala Tyr Leu Pro Glu Glu Leu Ser Ala
 165 170 175

Leu His Ser Trp Phe Gln Thr Leu Ser Thr Gln Glu Pro Cys Gln Arg
 180 185 190

Ala Ala Glu Thr Val Leu Lys Gln Gln Gly Val Leu Ala Leu Arg Pro
 195 200 205

Tyr Leu Gln Lys Gln Pro Gln Pro Ser Pro Ala Glu Gly Arg Ala Val
 210 215 220

Thr Asn Glu Pro Glu Glu Glu Glu Leu Ala Thr Leu Ser Glu Glu Glu
 225 230 235 240

Ile Ala Met Ala Val Thr Ala Trp Glu Lys Gly Leu Glu Ser Leu Pro
 245 250 255

Pro Leu Arg Pro Gln Gln Asn Pro Val Leu Pro Val Ala Gly Glu Arg
 260 265 270

Asn Val Leu Ile Thr Ser Ala Leu Pro Tyr Val Asn Asn Val Pro His
 275 280 285

Leu Gly Asn Ile Ile Gly Cys Val Leu Ser Ala Asp Val Phe Ala Arg
 290 295 300

Tyr Ser Arg Leu Arg Gln Trp Asn Thr Leu Tyr Leu Cys Gly Thr Asp
 305 310 315 320

Glu Tyr Gly Thr Ala Thr Glu Thr Lys Ala Leu Glu Glu Gly Leu Thr
 325 330 335

Pro Gln Glu Ile Cys Asp Lys Tyr His Ile Ile His Ala Asp Ile Tyr
 340 345 350

Arg Trp Phe Asn Ile Ser Phe Asp Ile Phe Gly Arg Thr Thr Thr Pro
 355 360 365

Gln Gln Thr Lys Ile Thr Gln Asp Ile Phe Gln Gln Leu Leu Lys Arg
 370 375 380

Gly Phe Val Leu Gln Asp Thr Val Glu Gln Leu Arg Cys Glu His Cys
 385 390 395 400

Ala Arg Phe Leu Ala Asp Arg Phe Val Glu Gly Val Cys Pro Phe Cys
 405 410 415

Gly Tyr Glu Glu Ala Arg Gly Asp Gln Cys Asp Lys Cys Gly Lys Leu
 420 425 430

1465

Ile Asn Ala Val Glu Leu Lys Lys Pro Gln Cys Lys Val Cys Arg Ser
 435 440 445

Cys Pro Val Val Gln Ser Ser Gln His Leu Phe Leu Asp Leu Pro Lys
 450 455 460

Leu Glu Lys Arg Leu Glu Glu Trp Leu Gly Arg Thr Leu Pro Gly Ser
 465 470 475 480

Asp Trp Thr Pro Asn Ala Gln Phe Ile Thr Arg Ser Trp Leu Arg Asp
 485 490 495

Gly Leu Lys Pro Arg Cys Ile Thr Arg Asp Leu Lys Trp Gly Thr Pro
 500 505 510

Val Pro Leu Glu Gly Phe Glu Asp Lys Val Phe Tyr Val Trp Phe Asp
 515 520 525

Ala Thr Ile Gly Tyr Leu Ser Ile Thr Ala Asn Tyr Thr Asp Gln Trp
 530 535 540

Glu Arg Trp Trp Lys Asn Pro Glu Gln Val Asp Leu Tyr Gln Phe Met
 545 550 555 560

Ala Lys Asp Asn Val Pro Phe His Ser Leu Val Phe Pro Cys Ser Ala
 565 570 575

Leu Gly Ala Glu Asp Asn Tyr Thr Leu Val Ser His Leu Ile Ala Thr
 580 585 590

Glu Tyr Leu Asn Tyr Glu Asp Gly Lys Phe Ser Lys Ser Arg Gly Val
 595 600 605

Gly Val Phe Gly Asp Met Ala Gln Asp Thr Gly Ile Pro Ala Asp Ile
 610 615 620

Trp Arg Phe Tyr Leu Leu Tyr Ile Arg Pro Glu Gly Gln Asp Ser Ala
 625 630 635 640

Phe Ser Trp Thr Asp Leu Leu Leu Lys Asn Asn Ser Glu Leu Leu Asn
 645 650 655

Asn Leu Gly Asn Phe Ile Asn Arg Ala Gly Met Phe Val Ser Lys Phe
 660 665 670

Phe Gly Gly Tyr Val Pro Glu Met Val Leu Thr Pro Asp Asp Gln Arg
 675 680 685

Leu Leu Ala His Val Thr Leu Glu Leu Gln His Tyr His Gln Leu Leu
 690 695 700

1466

Glu Lys Val Arg Ile Arg Asp Ala Leu Arg Ser Ile Leu Thr Ile Ser
705 710 715 720

Arg His Gly Asn Gln Tyr Ile Gln Val Asn Glu Pro Trp Lys Arg Ile
725 730 735

Lys Gly Ser Glu Ala Asp Arg Gln Arg Ala Gly Thr Val Thr Gly Leu
740 745 750

Ala Val Asn Ile Ala Ala Leu Leu Ser Val Met Leu Gln Pro Tyr Met
755 760 765

Pro Thr Val Ser Ala Thr Ile Gln Ala Gln Leu Gln Leu Pro Pro Pro
770 775 780

Ala Cys Ser Ile Leu Leu Thr Asn Phe Leu Cys Thr Leu Pro Ala Gly
785 790 795 800

His Gln Ile Gly Thr Val Ser Pro Leu Phe Gln Lys Leu Glu Asn Asp
805 810 815

Gln Ile Glu Ser Leu Arg Gln Arg Phe Gly Gly Gly Gln Ala Lys Thr
820 825 830

Ser Pro Lys Pro Ala Val Val Glu Thr Val Thr Thr Ala Lys Pro Gln
835 840 845

Gln Ile Gln Ala Leu Met Asp Glu Val Thr Lys Gln Gly Asn Ile Val
850 855 860

Arg Glu Leu Lys Ala Gln Lys Ala Asp Lys Asn Glu Val Ala Ala Glu
865 870 875 880

Val Ala Lys Leu Leu Asp Leu Lys Lys Gln Leu Ala Val Ala Glu Gly
885 890 895

Asn Pro Leu Lys Pro Leu Lys Ala Arg Arg Lys Ser Lys Arg Pro Trp
900 905 910

Leu Ile Glu Ser His Phe Asn Arg
915 920

<210> 1397

<211> 476

<212> PRT

<213> Homo sapiens

<220>

1467

<221> SITE

<222> (127)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1397

Lys Met Ala Ala Leu Thr Thr Leu Phe Lys Tyr Ile Asp Glu Asn Gln
1 5 10 15

Asp Arg Tyr Ile Lys Lys Leu Ala Lys Trp Val Ala Ile Gln Ser Val
20 25 30

Ser Ala Trp Pro Glu Lys Arg Gly Glu Ile Arg Arg Met Met Glu Val
35 40 45

Ala Ala Ala Asp Val Lys Gln Leu Gly Gly Ser Val Glu Leu Val Asp
50 55 60

Ile Gly Lys Gln Lys Leu Pro Asp Gly Ser Glu Ile Pro Leu Pro Pro
65 70 75 80

Ile Leu Leu Gly Arg Leu Gly Ser Asp Pro Gln Lys Lys Thr Val Cys
85 90 95

Ile Tyr Gly His Leu Asp Val Gln Pro Ala Ala Leu Glu Asp Gly Trp
100 105 110

Asp Ser Glu Pro Phe Thr Leu Val Glu Arg Asp Gly Lys Leu Xaa Gly
115 120 125

Arg Gly Ser Thr Asp Asp Lys Gly Pro Val Ala Gly Trp Ile Asn Ala
130 135 140

Leu Glu Ala Tyr Gln Lys Thr Gly Gln Glu Ile Pro Val Asn Val Arg
145 150 155 160

Phe Cys Leu Glu Gly Met Glu Glu Ser Gly Ser Glu Gly Leu Asp Glu
165 170 175

Leu Ile Phe Ala Arg Lys Asp Thr Phe Phe Lys Asp Val Asp Tyr Val
180 185 190

Cys Ile Ser Asp Asn Tyr Trp Leu Gly Lys Lys Lys Pro Cys Ile Thr
195 200 205

Tyr Gly Leu Arg Gly Ile Cys Tyr Phe Phe Ile Glu Val Glu Cys Ser
210 215 220

Asn Lys Asp Leu His Ser Gly Val Tyr Gly Gly Ser Val His Glu Ala
225 230 235 240

Met Thr Asp Leu Ile Leu Leu Met Gly Ser Leu Val Asp Lys Arg Gly

1468

| 245 | | | | | | | | | | 250 | | | | | 255 | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|--|
| Asn | Ile | Leu | Ile | Pro | Gly | Ile | Asn | Glu | Ala | Val | Ala | Ala | Val | Thr | Glu | | | | |
| | | | 260 | | | | | | 265 | | | | | 270 | | | | | |
| Glu | Glu | His | Lys | Leu | Tyr | Asp | Asp | Ile | Asp | Phe | Asp | Ile | Glu | Glu | Phe | | | | |
| | | 275 | | | | | | 280 | | | | | 285 | | | | | | |
| Ala | Lys | Asp | Val | Gly | Ala | Gln | Ile | Leu | Leu | His | Ser | His | Lys | Lys | Asp | | | | |
| | | 290 | | | | | | 295 | | | | | 300 | | | | | | |
| Ile | Leu | Met | His | Arg | Trp | Arg | Tyr | Pro | Ser | Leu | Ser | Leu | His | Gly | Ile | | | | |
| 305 | | | | | | | 310 | | | | | 315 | | | 320 | | | | |
| Glu | Gly | Ala | Phe | Ser | Gly | Ser | Gly | Ala | Lys | Thr | Val | Ile | Pro | Arg | Lys | | | | |
| | | | | 325 | | | | | 330 | | | | | 335 | | | | | |
| Val | Val | Gly | Lys | Phe | Ser | Ile | Arg | Leu | Val | Pro | Asn | Met | Thr | Pro | Glu | | | | |
| | | | 340 | | | | | | 345 | | | | | 350 | | | | | |
| Val | Val | Gly | Glu | Gln | Val | Thr | Ser | Tyr | Leu | Thr | Lys | Lys | Phe | Ala | Glu | | | | |
| | | 355 | | | | | | 360 | | | | | 365 | | | | | | |
| Leu | Arg | Ser | Pro | Asn | Glu | Phe | Lys | Val | Tyr | Met | Gly | His | Gly | Gly | Lys | | | | |
| | 370 | | | | | | 375 | | | | | 380 | | | | | | | |
| Pro | Trp | Val | Ser | Asp | Phe | Ser | His | Pro | His | Tyr | Leu | Ala | Gly | Arg | Arg | | | | |
| 385 | | | | | | 390 | | | | | 395 | | | | 400 | | | | |
| Ala | Met | Lys | Thr | Val | Phe | Gly | Val | Glu | Pro | Asp | Leu | Thr | Arg | Glu | Gly | | | | |
| | | | | 405 | | | | | | 410 | | | | | 415 | | | | |
| Gly | Ser | Ile | Pro | Val | Thr | Leu | Thr | Phe | Gln | Glu | Ala | Thr | Gly | Lys | Asn | | | | |
| | | | 420 | | | | | | 425 | | | | | 430 | | | | | |
| Val | Met | Leu | Leu | Pro | Val | Gly | Ser | Ala | Asp | Asp | Gly | Ala | His | Ser | Gln | | | | |
| | | 435 | | | | | | 440 | | | | | 445 | | | | | | |
| Asn | Glu | Lys | Leu | Asn | Arg | Tyr | Asn | Tyr | Ile | Glu | Gly | Thr | Lys | Met | Leu | | | | |
| | 450 | | | | | | 455 | | | | | 460 | | | | | | | |
| Ala | Ala | Tyr | Leu | Tyr | Glu | Val | Ser | Gln | Leu | Lys | Asp | | | | | | | | |
| 465 | | | | | | 470 | | | | | 475 | | | | | | | | |

<210> 1398

<211> 187

<212> PRT

<213> Homo sapiens

1469

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1398

Leu His Leu Xaa Pro Thr Ser Ile Ser Ser Ser Ser Ser Cys Ser Val
 1 5 10 15

Ser Ser Val Val Ser Gln Arg Leu Thr Glu Ser Pro Cys Ala Leu Val
 20 25 30

Ala Ser Gln Tyr Gly Trp Ser Gly Asn Met Glu Arg Ile Met Lys Ala
 35 40 45

Gln Ala Tyr Gln Thr Gly Lys Asp Ile Ser Thr Asn Tyr Tyr Ala Ser
 50 55 60

Gln Lys Lys Thr Phe Glu Ile Asn Pro Arg His Pro Leu Ile Arg Asp
 65 70 75 80

Met Leu Arg Arg Ile Lys Glu Asp Glu Asp Asp Lys Thr Val Leu Asp
 85 90 95

Leu Ala Val Val Leu Phe Glu Thr Ala Thr Leu Arg Ser Gly Tyr Leu
 100 105 110

Leu Pro Asp Thr Lys Ala Tyr Gly Asp Arg Ile Glu Arg Met Leu Arg
 115 120 125

Leu Ser Leu Asn Ile Asp Pro Asp Ala Lys Val Glu Glu Glu Pro Glu
 130 135 140

Glu Glu Pro Glu Glu Thr Ala Glu Asp Thr Thr Glu Asp Thr Glu Gln
 145 150 155 160

Asp Glu Asp Glu Glu Met Asp Val Gly Thr Asp Glu Glu Glu Glu Thr
 165 170 175

Ala Lys Glu Ser Thr Ala Glu Lys Asp Glu Leu
 180 185

<210> 1399

<211> 376

<212> PRT

<213> Homo sapiens

<400> 1399

Lys Ser Ser Thr Gly Val Ile Pro Asp Glu Ala Lys Ala Leu Ser Leu

1470

| | | | |
|---|-----|-----|-----|
| 1 | 5 | 10 | 15 |
| Leu Ala Pro Ala Asn Ala Val Ala Gly Leu Leu Pro Gly Gly Gly Leu | 20 | 25 | 30 |
| Leu Pro Thr Pro Asn Pro Leu Thr Gln Ile Gly Ala Val Pro Leu Ala | 35 | 40 | 45 |
| Ala Leu Gly Ala Pro Thr Leu Asp Pro Ala Leu Ala Ala Leu Gly Leu | 50 | 55 | 60 |
| Pro Gly Ala Asn Leu Asn Ser Gln Ser Leu Ala Ala Asp Gln Leu Leu | 65 | 70 | 75 |
| Lys Leu Met Ser Thr Val Asp Pro Lys Leu Asn His Val Ala Ala Gly | 85 | 90 | 95 |
| Leu Val Ser Pro Ser Leu Lys Ser Asp Thr Ser Ser Lys Glu Ile Glu | 100 | 105 | 110 |
| Glu Ala Met Lys Arg Val Arg Glu Ala Gln Ser Leu Ile Ser Ala Ala | 115 | 120 | 125 |
| Ile Glu Pro Asp Lys Lys Glu Glu Lys Arg Arg His Ser Arg Ser Arg | 130 | 135 | 140 |
| Ser Arg Ser Arg Arg Arg Arg Thr Pro Ser Ser Ser Arg His Arg Arg | 145 | 150 | 155 |
| Ser Arg Ser Arg Ser Arg Arg Arg Ser His Ser Lys Ser Arg Ser Arg | 165 | 170 | 175 |
| Arg Arg Ser Lys Ser Pro Arg Arg Arg Arg Ser His Ser Arg Glu Arg | 180 | 185 | 190 |
| Gly Arg Arg Ser Arg Ser Thr Ser Lys Thr Arg Asp Lys Lys Lys Glu | 195 | 200 | 205 |
| Asp Lys Glu Lys Lys Arg Ser Lys Thr Pro Pro Lys Ser Tyr Ser Thr | 210 | 215 | 220 |
| Ala Arg Arg Ser Arg Ser Ala Ser Arg Glu Arg Arg Arg Arg Ser | 225 | 230 | 235 |
| Arg Ser Gly Thr Arg Ser Pro Lys Lys Pro Arg Ser Pro Lys Arg Lys | 245 | 250 | 255 |
| Leu Ser Arg Ser Pro Ser Pro Arg Arg His Lys Lys Glu Lys Lys Lys | 260 | 265 | 270 |
| Asp Lys Asp Lys Glu Arg Ser Arg Asp Glu Arg Glu Arg Ser Thr Ser | | | |

1471

| | | |
|---|-----|---------|
| 275 | 280 | 285 |
| Lys Lys Lys Lys Ser Lys Asp Lys Glu Lys Asp Arg Glu Arg Lys Ser | | |
| 290 | 295 | 300 |
| Glu Ser Asp Lys Asp Val Lys Gln Val Thr Arg Asp Tyr Asp Glu Glu | | |
| 305 | 310 | 315 320 |
| Glu Gln Gly Tyr Asp Ser Glu Lys Glu Lys Lys Glu Glu Lys Lys Pro | | |
| | 325 | 330 335 |
| Ile Glu Thr Gly Ser Pro Lys Thr Lys Glu Cys Ser Val Glu Lys Gly | | |
| | 340 | 345 350 |
| Thr Gly Asp Ser Leu Arg Glu Ser Lys Val Asn Gly Asp Asp His His | | |
| | 355 | 360 365 |
| Glu Glu Asp Met Asp Met Ser Asp | | |
| 370 | 375 | |

<210> 1400

<211> 112

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (21)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1400

| | | |
|---|----|----------|
| Thr Ala Gly Leu Thr Ser Arg Gly Trp Gly Ser Leu Pro Pro Ser Leu | | |
| 1 | 5 | 10 15 |
| Glu Thr Phe Leu Xaa Trp Leu Lys Ser Arg Lys Glu Asn Glu Cys Thr | | |
| | 20 | 25 30 |
| Ser Arg Leu Ala Gln Ser Leu Ser Pro Ser Ser Ser Leu Phe Pro Ala | | |
| | 35 | 40 45 |
| Gly Pro Ser Gly Leu Tyr Gly Pro Asp Gly Gly Leu Arg Lys Met Arg | | |
| | 50 | 55 60 |
| Gly Leu Trp Phe Ser Gly Ile Pro Ala Gly Ala Thr Pro Ser Cys Leu | | |
| | 65 | 70 75 80 |
| Gln Met Val His Val Pro Ile Pro Pro Ser Arg Pro Leu Leu Cys Leu | | |
| | 85 | 90 95 |

1472

Leu Cys His Arg Asp Ser Gln Gln Arg Phe Phe Phe Val Leu Ala Val
100 105 110

<210> 1401

<211> 69

<212> PRT

<213> Homo sapiens

<400> 1401

Arg Arg Gln Val Gly Ala Ala Ala Val Ala Met Thr Arg Gly Asn Gln
1 5 10 15

Arg Glu Leu Ala Arg Gln Lys Asn Met Lys Lys Gln Ser Asp Ser Val
20 25 30

Lys Gly Lys Arg Arg Asp Asp Gly Leu Ser Ala Ala Ala Arg Lys Gln
35 40 45

Arg Asp Ser Glu Ile Met Gln Gln Lys Gln Lys Lys Ala Asn Glu Lys
50 55 60

Lys Glu Glu Pro Lys
65

<210> 1402

<211> 177

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (6)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (162)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (166)

<223> Xaa equals any of the naturally occurring L-amino acids

1473

<400> 1402

```

Arg Pro Pro Arg Arg Xaa Pro Met Asp Gly Pro Ala Ile Ile Thr Gln
 1             5             10             15

Val Thr Asn Pro Lys Glu Asp Glu Gly Arg Leu Pro Gly Ala Gly Glu
      20             25             30

Lys Ala Ser Gln Cys Asn Val Ser Leu Lys Lys Gln Arg Ser Arg Ser
      35             40             45

Ile Leu Ser Ser Phe Phe Cys Cys Phe Arg Asp Tyr Asn Val Glu Ala
      50             55             60

Pro Pro Pro Ser Ser Pro Ser Val Leu Pro Pro Leu Val Glu Glu Asn
      65             70             75             80

Gly Gly Leu Gln Lys Pro Pro Ala Lys Tyr Leu Leu Pro Glu Val Thr
      85             90             95

Val Leu Asp Tyr Gly Lys Lys Cys Val Val Ile Asp Leu Asp Glu Thr
      100            105            110

Leu Val His Ser Ser Phe Lys Pro Ile Ser Asn Ala Asp Phe Ile Val
      115            120            125

Pro Val Glu Ile Asp Gly Thr Ile His Gln Val Tyr Val Leu Lys Arg
      130            135            140

Pro His Val Asp Glu Phe Leu Gln Arg Met Gly Gln Leu Leu Asn Val
      145            150            155            160

Cys Xaa Leu Leu Pro Xaa Gly Gln Val Cys Arg Pro Val Ala Asp Leu
      165            170            175

Leu

```

<210> 1403

<211> 82

<212> PRT

<213> Homo sapiens

<400> 1403

```

Lys His Ile Leu Ser Thr Phe Glu Thr Ser Val Leu Glu Gly Arg Leu
 1             5             10             15

His Lys Leu Ser Ser Pro Arg Leu Arg Arg Leu Gln Ser Gly Lys Leu
      20             25             30

```


1474

Thr Cys Arg Asn Gly Val Pro Phe Met Leu Tyr Leu Asp Lys Gly Asn
 35 40 45

Gln Lys Trp Asn Gln Cys Arg Gln Asn Leu Gly Phe Ala Ala Ser Ile
 50 55 60

Asn Gln Ser Met Thr Asn Arg Gly Ser Leu Lys Cys Lys Gly Thr Asn
 65 70 75 80

Phe Thr

<210> 1404

<211> 251

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (37)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (41)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1404

Thr Thr Lys Pro Ala Thr Thr Pro Ser Ser Thr Thr Arg Thr Cys Arg
 1 5 10 15

Arg Ser Pro Ser Thr Leu Pro Ser Ala Thr Trp Thr Pro Leu Ala Ser
 20 25 30

Arg Thr Ala His Xaa Leu Pro Arg Xaa Tyr Met Tyr Pro Ser Met Asp
 35 40 45

Gln Leu Ala Glu Met Leu Pro Gly Val Leu Gln Gln Phe Gly Leu Lys
 50 55 60

Ser Ile Ile Gly Met Gly Thr Gly Ala Gly Ala Tyr Ile Leu Thr Arg
 65 70 75 80

Phe Ala Leu Asn Asn Pro Glu Met Val Glu Gly Leu Val Leu Ile Asn
 85 90 95

Val Asn Pro Cys Ala Glu Gly Trp Met Asp Trp Ala Ala S r Lys Ile
 100 105 110

1475

Ser Gly Trp Thr Gln Ala Leu Pro Asp Met Val Val Ser His Leu Phe
 115 120 125

Gly Lys Glu Glu Met Gln Ser Asn Val Glu Val Val His Thr Tyr Arg
 130 135 140

Gln His Ile Val Asn Asp Met Asn Pro Gly Asn Leu His Leu Phe Ile
 145 150 155 160

Asn Ala Tyr Asn Ser Arg Arg Asp Leu Glu Ile Glu Arg Pro Met Pro
 165 170 175

Gly Thr His Thr Val Thr Leu Gln Cys Pro Ala Leu Leu Val Val Gly
 180 185 190

Asp Ser Ser Pro Ala Val Asp Ala Val Val Glu Cys Asn Ser Lys Leu
 195 200 205

Asp Pro Thr Lys Thr Thr Leu Leu Lys Met Ala Asp Cys Gly Gly Leu
 210 215 220

Pro Gln Ile Ser Gln Pro Ala Lys Leu Ala Glu Ala Phe Lys Tyr Phe
 225 230 235 240

Val Gln Gly Met Gly Tyr Met Pro Arg Leu Ala
 245 250

<210> 1405

<211> 127

<212> PRT

<213> Homo sapiens

<400> 1405

Phe Glu Gly Phe Tyr Ser Gly Arg Lys Asn Arg Thr Lys Val Tyr Val
 1 5 10 15

Pro Ser Ser Val Val Leu Ile Asp Leu Phe Phe Leu Phe Glu Thr Lys
 20 25 30

Val Val Ser Val Phe Trp Phe Ser Gly Asn Met Tyr Tyr Ile Val Leu
 35 40 45

Lys Glu Cys Cys Pro Thr Asn Tyr Ser Ser Lys Gln Arg Ile Val Thr
 50 55 60

Ile Asn Lys Val Ser Val Thr Leu Leu Pro Leu Ser His Asn Ile His
 65 70 75 80

Cys Arg Ala Leu Cys Arg Ser Lys Asn Arg Ala Ala Gln Asn Leu Cys

1476

| | 85 | | 90 | | 95 | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Ser | Phe | Leu | Ser | Phe | Cys | Asn | Leu | Arg | His | Met | Phe | Gln | Arg | Thr |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Gly | Ile | Phe | Val | Trp | Ser | Ser | Asp | Leu | Gly | Asp | His | Ser | His | Asn | |
| | | | 115 | | | | 120 | | | | | 125 | | | |

<210> 1406

<211> 230

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (90)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (112)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (118)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (169)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (190)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (192)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (194)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1477

<221> SITE

<222> (217)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (218)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1406

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Glu | Arg | Pro | Leu | Gln | Val | Pro | Arg | Ser | Ala | Gly | Glu | Ala | Ala | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| His | Ser | Arg | Arg | Pro | Pro | Gly | Leu | Leu | Pro | His | Ala | Pro | Arg | Ala | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Ala | Gln | Leu | Glu | Glu | Arg | Arg | Arg | Asp | Pro | His | Pro | Gly | Met | Thr |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Leu | Gln | Glu | Gly | Asp | Cys | Arg | Gly | Ser | Gln | Thr | Val | Ser | Leu | Thr | Met |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Gly | Thr | Ala | Asp | Ser | Asp | Glu | Met | Ala | Pro | Glu | Ala | Pro | Gln | His | Thr |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| His | Ile | Asp | Val | His | Ile | His | Gln | Glu | Xaa | Ala | Leu | Ala | Lys | Leu | Leu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Leu | Thr | Cys | Cys | Ser | Ala | Leu | Arg | Pro | Arg | Ala | Thr | Gln | Ala | Arg | Xaa |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Ser | Ser | Arg | Leu | Leu | Xaa | Ala | Ser | Trp | Val | Met | Gln | Ile | Val | Leu | Gly |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ile | Leu | Ser | Ala | Val | Leu | Gly | Gly | Phe | Phe | Tyr | Ile | Arg | Asp | Tyr | Thr |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Leu | Leu | Val | Thr | Ser | Gly | Ala | Ala | Ser | Gly | Gln | Gly | Leu | Trp | Leu | Cys |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Cys | Trp | Ser | Cys | Cys | Leu | His | Leu | Xaa | Glu | Thr | Gly | Trp | Tyr | Ile | Leu |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Gly | Pro | Ala | Glu | Asp | Ser | Ala | Asn | Ala | Gly | Lys | Leu | Ser | Xaa | Gln | Xaa |
| | | 180 | | | | | | 185 | | | | | 190 | | |
| Ser | Xaa | Ala | Ser | Asn | Phe | Gly | Asn | Glu | Glu | Phe | Arg | Tyr | Gly | Leu | Leu |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Leu | Ile | Thr | Thr | Ser | Gly | Trp | Pro | Xaa | Xaa | Gln | Val | Arg | Val | Asp | Trp |
| | 210 | | | | | 215 | | | | | 220 | | | | |

1478

Asn Thr Ser Ser Pro Gln
225 230

<210> 1407
<211> 79
<212> PRT
<213> Homo sapiens

<400> 1407
Arg Gly His Phe Leu Leu Pro Asp Leu Asp Ile Pro Ser Asn Pro Ser
1 5 10 15
Ser Tyr Ser Met Leu Lys Glu Lys Tyr Ser Gln Met His Tyr Val Asn
20 25 30
Gly Glu Lys Lys His Ser Ile Val Glu Thr Pro Ile Leu Ala Asn Val
35 40 45
Phe Trp Ser Val Phe His Phe Thr Val Tyr Ile Pro Ala Leu Lys Thr
50 55 60
Gln Gly Gln Val Leu Thr Lys Glu Val Cys Ser His Ser Lys Tyr
65 70 75

<210> 1408
<211> 289
<212> PRT
<213> Homo sapiens

<400> 1408
Val Arg Pro Pro Ser His Val Thr Ala Asp Ser Gly Arg Ser Pro Leu
1 5 10 15
Ser Leu Thr Tyr Leu Pro Leu Gln Glu Pro Gly Asp Met Ala Ala Ala
20 25 30
Val Pro Arg Ala Ala Phe Leu Ser Pro Leu Leu Pro Leu Leu Gly
35 40 45
Phe Leu Leu Leu Ser Ala Pro His Gly Gly Ser Gly Leu His Thr Lys
50 55 60
Gly Ala Leu Pro Leu Asp Thr Val Thr Phe Tyr Lys Val Ile Pro Lys
65 70 75 80
Ser Lys Phe Val Leu Val Lys Phe Asp Thr Gln Tyr Pro Tyr Gly Glu

1479

| 85 | | | | | 90 | | | | | 95 | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Gln | Asp | Glu | Phe | Lys | Arg | Leu | Ala | Glu | Asn | Ser | Ala | Ser | Ser | Asp |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Asp | Leu | Leu | Val | Ala | Glu | Val | Gly | Ile | Ser | Asp | Tyr | Gly | Asp | Lys | Leu |
| | | | 115 | | | | 120 | | | | | 125 | | | |
| Asn | Met | Glu | Leu | Ser | Glu | Lys | Tyr | Lys | Leu | Asp | Lys | Glu | Ser | Tyr | Pro |
| | | | 130 | | | | 135 | | | | | 140 | | | |
| Val | Phe | Tyr | Leu | Phe | Arg | Asp | Gly | Asp | Phe | Glu | Asn | Pro | Val | Pro | Tyr |
| 145 | | | | | | 150 | | | | | 155 | | | | 160 |
| Thr | Gly | Ala | Val | Lys | Val | Gly | Ala | Ile | Gln | Arg | Trp | Leu | Lys | Gly | Gln |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Gly | Val | Tyr | Leu | Gly | Met | Pro | Gly | Cys | Leu | Pro | Val | Tyr | Asp | Ala | Leu |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ala | Gly | Glu | Phe | Ile | Arg | Ala | Ser | Gly | Val | Glu | Ala | Arg | Gln | Ala | Leu |
| | | | 195 | | | | 200 | | | | | 205 | | | |
| Leu | Lys | Gln | Gly | Gln | Asp | Asn | Leu | Ser | Ser | Val | Lys | Glu | Thr | Gln | Lys |
| | | | 210 | | | | 215 | | | | | 220 | | | |
| Lys | Trp | Ala | Glu | Gln | Tyr | Leu | Lys | Ile | Met | Gly | Lys | Ile | Leu | Asp | Gln |
| 225 | | | | | | 230 | | | | | 235 | | | | 240 |
| Gly | Glu | Asp | Phe | Pro | Ala | Ser | Glu | Met | Thr | Arg | Ile | Ala | Arg | Leu | Ile |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Glu | Lys | Asn | Lys | Met | Ser | Asp | Gly | Lys | Lys | Glu | Glu | Leu | Gln | Lys | Ser |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Leu | Asn | Ile | Leu | Thr | Ala | Phe | Gln | Lys | Lys | Gly | Ala | Glu | Lys | Glu | Glu |
| | | | 275 | | | | 280 | | | | | 285 | | | |

Leu

<210> 1409

<211> 488

<212> PRT

<213> Homo sapiens

<400> 1409

Pro Ala Ser Ala Gly Thr Val Ser Glu Gly Pro Pro Gly Thr Asp Gly
1 5 10 15

1480

Ser Ala Gly Arg Gly Gly Thr Ala Phe Ala Met Ala Ala Thr Val Asn
 20 25 30

Leu Glu Leu Asp Pro Ile Phe Leu Lys Ala Leu Gly Phe Leu His Ser
 35 40 45

Lys Ser Lys Asp Ser Ala Glu Lys Leu Lys Ala Leu Leu Asp Glu Ser
 50 55 60

Leu Ala Arg Gly Ile Asp Ser Ser Tyr Arg Pro Ser Gln Lys Asp Val
 65 70 75 80

Glu Pro Pro Lys Ile Ser Ser Thr Lys Asn Ile Ser Ile Lys Gln Glu
 85 90 95

Pro Lys Ile Ser Ser Ser Leu Pro Ser Gly Asn Asn Asn Gly Lys Val
 100 105 110

Leu Thr Thr Glu Lys Val Lys Lys Glu Ala Glu Lys Arg Pro Ala Asp
 115 120 125

Lys Met Lys Ser Asp Ile Thr Glu Gly Val Asp Ile Pro Lys Lys Pro
 130 135 140

Arg Leu Glu Lys Pro Glu Thr Gln Ser Ser Pro Ile Thr Val Gln Ser
 145 150 155 160

Ser Lys Asp Leu Pro Met Ala Asp Leu Ser Ser Phe Glu Glu Thr Ser
 165 170 175

Ala Asp Asp Phe Ala Met Glu Met Gly Leu Ala Cys Val Val Cys Arg
 180 185 190

Gln Met Met Val Ala Ser Gly Asn Gln Leu Val Glu Cys Gln Glu Cys
 195 200 205

His Asn Leu Tyr His Arg Asp Cys His Lys Pro Gln Val Thr Asp Lys
 210 215 220

Glu Ala Asn Asp Pro Arg Leu Val Trp Tyr Cys Ala Arg Cys Thr Arg
 225 230 235 240

Gln Met Lys Arg Met Ala Gln Lys Thr Gln Lys Pro Pro Gln Lys Pro
 245 250 255

Ala Pro Ala Val Val Ser Val Thr Pro Ala Val Lys Asp Pro Leu Val
 260 265 270

Lys Lys Pro Glu Thr Lys Leu Lys Gln Glu Thr Thr Ph Leu Ala Phe
 275 280 285

1481

Lys Arg Thr Glu Val Lys Thr Ser Thr Val Il Ser Gly Asn Ser Ser
 290 295 300
 Ser Ala Ser Val Ser Ser Ser Val Thr Ser Gly Leu Thr Gly Trp Ala
 305 310 315 320
 Ala Phe Ala Ala Lys Thr Ser Ser Ala Gly Pro Ser Thr Ala Lys Leu
 325 330 335
 Ser Ser Thr Thr Gln Asn Asn Thr Gly Lys Pro Ala Thr Ser Ser Ala
 340 345 350
 Asn Gln Lys Pro Val Gly Leu Thr Gly Leu Ala Thr Ser Ser Lys Gly
 355 360 365
 Gly Ile Gly Ser Lys Ile Gly Ser Asn Asn Ser Thr Thr Pro Thr Val
 370 375 380
 Pro Leu Lys Pro Pro Pro Pro Leu Thr Leu Gly Lys Thr Gly Leu Ser
 385 390 395 400
 Arg Ser Val Ser Cys Asp Asn Val Ser Lys Val Gly Leu Pro Ser Pro
 405 410 415
 Ser Ser Leu Val Pro Gly Ser Ser Ser Gln Leu Ser Gly Asn Gly Asn
 420 425 430
 Ser Gly Thr Ser Gly Pro Ser Gly Ser Thr Thr Ser Lys Thr Thr Ser
 435 440 445
 Glu Ser Ser Ser Ser Pro Ser Ala Ser Leu Lys Gly Pro Thr Ser Gln
 450 455 460
 Glu Ser Gln Leu Asn Ala Met Lys Arg Leu Gln Met Val Lys Lys Lys
 465 470 475 480
 Ala Ala Gln Lys Lys Leu Lys Lys
 485

<210> 1410

<211> 64

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (53)

<223> Xaa equals any of the naturally occurring L-amino acids

1482

<400> 1410

His Tyr Gly Leu Lys Leu Ala Val Lys Met Pro Asn Thr Val Val Pro
 1 5 10 15

Trp Asn Pro Val Tyr Ser Cys Ala Lys Gln Asn Cys Lys Ile Val Lys
 20 25 30

Met Ser Tyr Gln Val Ile Arg Arg Leu Gln Arg His His Leu Phe Phe
 35 40 45

Ile Ser Phe Phe Xaa Leu Thr His Val Val Val Ile Phe Asn Thr Phe
 50 55 60

<210> 1411

<211> 129

<212> PRT

<213> Homo sapiens

<400> 1411

Ala Ala Cys Leu Ala Leu Arg Ile Ala Ala Ala Met Ala Ser Gln Ser
 1 5 10 15

Gln Gly Ile Gln Gln Leu Leu Gln Ala Glu Lys Arg Ala Ala Glu Lys
 20 25 30

Val Ser Glu Ala Arg Lys Arg Lys Asn Arg Arg Leu Lys Gln Ala Lys
 35 40 45

Glu Glu Ala Gln Ala Glu Ile Glu Gln Tyr Arg Leu Gln Arg Glu Lys
 50 55 60

Glu Phe Lys Ala Lys Glu Ala Ala Ala Leu Gly Ser Arg Gly Ser Cys
 65 70 75 80

Ser Thr Glu Val Glu Lys Glu Thr Gln Glu Lys Met Thr Ile Leu Gln
 85 90 95

Thr Tyr Phe Arg Gln Asn Arg Asp Glu Val Leu Asp Asn Leu Leu Ala
 100 105 110

Phe Val Cys Asp Ile Arg Pro Glu Ile His Glu Asn Tyr Arg Ile Asn
 115 120 125

Gly

1483

<210> 1412

<211> 177

<212> PRT

<213> Homo sapiens

<400> 1412

```

Val Thr Val Pro Ser Ser Ser Ala Ala Gly Thr Leu Phe Gln Gly Leu
  1              5              10              15

Cys Gly Ala Pro Asp Ala Pro His Pro Leu Ser Lys Ile Pro Gly Gly
      20              25              30

Arg Gly Gly Gly Arg Asp Pro Ser Leu Ser Ala Leu Ile Tyr Lys Asp
      35              40              45

Glu Lys Leu Thr Val Thr Gln Asp Leu Pro Val Asn Asp Gly Lys Pro
      50              55              60

His Ile Val His Phe Gln Tyr Glu Val Thr Glu Val Lys Val Ser Ser
      65              70              75              80

Trp Asp Ala Val Leu Ser Ser Gln Ser Leu Phe Val Glu Ile Pro Asp
      85              90              95

Gly Leu Leu Ala Asp Gly Ser Lys Glu Gly Leu Leu Ala Leu Leu Glu
      100              105              110

Phe Ala Glu Glu Lys Met Lys Val Asn Tyr Val Phe Ile Cys Phe Arg
      115              120              125

Lys Gly Arg Glu Asp Arg Ala Pro Leu Leu Lys Thr Phe Ser Phe Leu
      130              135              140

Gly Phe Glu Ile Val Arg Pro Gly His Pro Cys Val Pro Ser Arg Pro
      145              150              155              160

Asp Val Met Phe Met Val Tyr Pro Leu Asp Gln Asn Leu Ser Asp Glu
      165              170              175

```

Asp

<210> 1413

<211> 112

<212> PRT

<213> Homo sapiens

1484

<400> 1413

```

Ser Gly Leu Arg Leu Ala Met Ser Thr Asn Asn Met Ser Asp Pro Arg
 1           5           10           15

Arg Pro Asn Lys Val Leu Arg Tyr Lys Pro Pro Pro Ser Glu Cys Asn
          20           25           30

Pro Ala Leu Asp Asp Pro Thr Pro Asp Tyr Met Asn Leu Leu Gly Met
          35           40           45

Ile Phe Ser Met Cys Gly Leu Met Leu Lys Leu Lys Trp Cys Ala Trp
 50           55           60

Val Ala Val Tyr Cys Ser Phe Ile Ser Phe Ala Asn Ser Arg Ser Ser
 65           70           75           80

Glu Asp Thr Lys Gln Met Met Ser Ser Phe Met Leu Ser Ile Ser Ala
          85           90           95

Val Val Met Ser Tyr Leu Gln Asn Pro Gln Pro Met Thr Pro Pro Trp
          100          105          110

```

<210> 1414

<211> 186

<212> PRT

<213> Homo sapiens

<400> 1414

```

Cys Leu Gly Gly Arg Pro Arg Cys Val Leu Arg Leu Thr Ala Asn Leu
 1           5           10           15

Glu Gly Arg Arg Asp Ser Ala Thr His Ala Pro Pro His Pro Arg Leu
          20           25           30

Arg Val Lys Arg Ala Val Gly Pro Glu Ser Pro Pro Leu Trp Gln Trp
          35           40           45

Pro Pro Leu Tyr Ser Ile Leu Pro Ser Gly Arg Ser Ala Val Asn Lys
          50           55           60

Arg Trp Ala Pro Gln Ser Thr Cys Pro Pro Thr Ala Leu Ala Val Leu
          65           70           75           80

Gly Ser Ser Leu Gln Phe Thr Gly Asn Lys Pro Glu Ser Ala Arg Thr
          85           90           95

```

1485

Arg Gly Cys Ser Pro Gly Ser Ala Arg Pro Pro Leu Ser Pro Ala Thr
 100 105 110

Gly Trp Arg Cys Arg Ala Arg Ala Ala Ala Ser Arg Arg Phe Pro Gly
 115 120 125

Ala Pro Gly Pro Glu Glu Arg Ser Pro Gln Ser Lys Gly Gly Asn Thr
 130 135 140

Cys Leu Arg Cys Lys Glu Ile Leu Phe Gln Ser Ile Pro Val Val Gln
 145 150 155 160

Thr Asp Thr Val Pro Asn Glu Arg Ser Asp Val Phe Ser Ser Pro Phe
 165 170 175

Leu Ile Cys Phe Leu Thr Gly Leu Arg Phe
 180 185

<210> 1415

<211> 108

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (46)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (68)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1415

Thr Lys Thr Thr Leu Phe Leu Glu Arg Pro Leu Phe Lys Lys Glu Ser
 1 5 10 15

Ile Thr Pro Thr Val Glu Leu Asn Ala Leu Cys Met Lys Leu Gly Lys
 20 25 30

Lys Pro Met Tyr Lys Pro Val Asp Pro Tyr Ser Arg Met Xaa Ser Thr
 35 40 45

Tyr Asn Tyr Asn Met Arg Gly Gly Ala Tyr Pro Pro Arg Tyr Phe Tyr
 50 55 60

Pro Phe Pro Xaa Pro Pro Leu Leu Tyr Gln Val Glu L u Ser Val Gly
 65 70 75 80

1486

Gly Gln Gln Phe Asn Gly Lys Gly Lys Thr Arg Gln Ala Ala Lys His
 85 90 95

Asp Ala Ala Ala Lys Ala Val Glu Asp Pro Ala Glu
 100 105

<210> 1416

<211> 621

<212> PRT

<213> Homo sapiens

<400> 1416

Ala Gly His Arg Ala Gly Val Cys Ser Leu Ser Ala Thr Arg Leu Leu
 1 5 10 15

Leu Pro Lys Asp Arg Gly Val Gly Arg Arg Gln Thr Met Trp Thr Leu
 20 25 30

Val Ser Trp Val Ala Leu Thr Ala Gly Leu Val Ala Gly Thr Arg Cys
 35 40 45

Pro Asp Gly Gln Phe Cys Pro Val Ala Cys Cys Leu Asp Pro Gly Gly
 50 55 60

Ala Ser Tyr Ser Cys Cys Arg Pro Leu Leu Asp Lys Trp Pro Thr Thr
 65 70 75 80

Leu Ser Arg His Leu Gly Gly Pro Cys Gln Val Asp Ala His Cys Ser
 85 90 95

Ala Gly His Ser Cys Ile Phe Thr Val Ser Gly Thr Ser Ser Cys Cys
 100 105 110

Pro Phe Pro Glu Ala Val Ala Cys Gly Asp Gly His His Cys Cys Pro
 115 120 125

Arg Gly Phe His Cys Ser Ala Asp Gly Arg Ser Cys Phe Gln Arg Ser
 130 135 140

Gly Asn Asn Ser Val Gly Ala Ile Gln Cys Pro Asp Ser Gln Phe Glu
 145 150 155 160

Cys Pro Asp Phe Ser Thr Cys Cys Val Met Val Asp Gly Ser Trp Gly
 165 170 175

Cys Cys Pro Met Pro Gln Ala Ser Cys Cys Glu Asp Arg Val His Cys
 180 185 190

1487

Cys Pro His Gly Ala Phe Cys Asp Leu Val His Thr Arg Cys Ile Thr
 195 200 205

Pro Thr Gly Thr His Pro Leu Ala Lys Lys Leu Pro Ala Gln Arg Thr
 210 215 220

Asn Arg Ala Val Ala Leu Ser Ser Ser Val Met Cys Pro Asp Ala Arg
 225 230 235 240

Ser Arg Cys Pro Asp Gly Ser Thr Cys Cys Glu Leu Pro Ser Gly Lys
 245 250 255

Tyr Gly Cys Cys Pro Met Pro Asn Ala Thr Cys Cys Ser Asp His Leu
 260 265 270

His Cys Cys Pro Gln Asp Thr Val Cys Asp Leu Ile Gln Ser Lys Cys
 275 280 285

Leu Ser Lys Glu Asn Ala Thr Thr Asp Leu Leu Thr Lys Leu Pro Ala
 290 295 300

His Thr Val Gly Asp Val Lys Cys Asp Met Glu Val Ser Cys Pro Asp
 305 310 315 320

Gly Tyr Thr Cys Cys Arg Leu Gln Ser Gly Ala Trp Gly Cys Cys Pro
 325 330 335

Phe Thr Gln Ala Val Cys Cys Glu Asp His Ile His Cys Cys Pro Ala
 340 345 350

Gly Phe Thr Cys Asp Thr Gln Lys Gly Thr Cys Glu Gln Gly Pro His
 355 360 365

Gln Val Pro Trp Met Glu Lys Ala Pro Ala His Leu Ser Leu Pro Asp
 370 375 380

Pro Gln Ala Leu Lys Arg Asp Val Pro Cys Asp Asn Val Ser Ser Cys
 385 390 395 400

Pro Ser Ser Asp Thr Cys Cys Gln Leu Thr Ser Gly Glu Trp Gly Cys
 405 410 415

Cys Pro Ile Pro Glu Ala Val Cys Cys Ser Asp His Gln His Cys Cys
 420 425 430

Pro Gln Gly Tyr Thr Cys Val Ala Glu Gly Gln Cys Gln Arg Gly Ser
 435 440 445

Glu Ile Val Ala Gly Leu Glu Lys Met Pro Ala Arg Arg Ala Ser Leu
 450 455 460

1488

Ser His Pro Arg Asp Ile Gly Cys Asp Gln His Thr Ser Cys Pro Val
 465 470 475 480

Gly Gln Thr Cys Cys Pro Ser Leu Gly Gly Ser Trp Ala Cys Cys Gln
 485 490 495

Leu Pro His Ala Val Cys Cys Glu Asp Arg Gln His Cys Cys Pro Ala
 500 505 510

Gly Tyr Thr Cys Asn Val Lys Ala Arg Ser Cys Glu Lys Glu Val Val
 515 520 525

Ser Ala Gln Pro Ala Thr Phe Leu Ala Arg Ser Pro His Val Gly Val
 530 535 540

Lys Asp Val Glu Cys Gly Glu Gly His Phe Cys His Asp Asn Gln Thr
 545 550 555 560

Cys Cys Arg Asp Asn Arg Gln Gly Trp Ala Cys Cys Pro Tyr Arg Gln
 565 570 575

Gly Val Cys Cys Ala Asp Arg Arg His Cys Cys Pro Ala Gly Phe Arg
 580 585 590

Cys Ala Ala Arg Gly Thr Lys Cys Leu Arg Arg Glu Ala Pro Arg Trp
 595 600 605

Asp Ala Pro Leu Arg Asp Pro Ala Leu Arg Gln Leu Leu
 610 615 620

<210> 1417

<211> 340

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (10)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (24)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1417

Ser Ala His Ala Ser Glu Arg Ile Ala Xaa Ser Gly Cys Gly Ala Pro

1

5

10

15

1489

Ala Ala Gly Ala Gly Pro Arg Xaa Arg Ser Leu Gly Ala Asp Pro Gly
 20 25 30

Arg Ala Ala Arg Arg His Glu Gly Gln Gly Gly Glu Gly Gly Arg Arg
 35 40 45

Thr Ala Gly Arg Trp Arg Arg Lys Pro Glu Lys Ser Pro Ser Ala Gln
 50 55 60

Glu Leu Lys Glu Gln Gly Asn Arg Leu Phe Val Gly Arg Lys Tyr Pro
 65 70 75 80

Glu Ala Ala Ala Cys Tyr Gly Arg Ala Ile Thr Arg Asn Pro Leu Val
 85 90 95

Ala Val Tyr Tyr Thr Asn Arg Ala Leu Cys Tyr Leu Lys Met Gln Gln
 100 105 110

His Glu Gln Ala Leu Ala Asp Cys Arg Arg Ala Leu Glu Leu Asp Gly
 115 120 125

Gln Ser Val Lys Ala His Phe Phe Leu Gly Gln Cys Gln Leu Glu Met
 130 135 140

Glu Ser Tyr Asp Glu Ala Ile Ala Asn Leu Gln Arg Ala Tyr Ser Leu
 145 150 155 160

Ala Lys Glu Gln Arg Leu Asn Phe Gly Asp Asp Ile Pro Ser Ala Leu
 165 170 175

Arg Ile Ala Lys Lys Lys Arg Trp Asn Ser Ile Glu Glu Arg Arg Ile
 180 185 190

His Gln Glu Ser Glu Leu His Ser Tyr Leu Ser Arg Leu Ile Ala Ala
 195 200 205

Glu Arg Glu Arg Glu Leu Glu Glu Cys Gln Arg Asn His Glu Gly Asp
 210 215 220

Glu Asp Asp Ser His Val Arg Ala Gln Gln Ala Cys Ile Glu Ala Lys
 225 230 235 240

His Asp Lys Tyr Met Ala Asp Met Asp Glu Leu Phe Ser Gln Val Asp
 245 250 255

Glu Lys Arg Lys Lys Arg Asp Ile Pro Asp Tyr Leu Cys Gly Lys Ile
 260 265 270

Ser Phe Glu Leu Met Arg Glu Pro Cys Ile Thr Pro S r Gly Ile Thr
 275 280 285

1490

Tyr Asp Arg Lys Asp Ile Glu Glu His Leu Gln Arg Val Gly His Phe
 290 295 300

Asp Pro Val Thr Arg Ser Pro Leu Thr Gln Glu Gln Leu Ile Pro Asn
 305 310 315 320

Leu Ala Met Lys Glu Val Ile Asp Ala Phe Ile Ser Glu Asn Gly Trp
 325 330 335

Val Glu Asp Tyr
 340

<210> 1418

<211> 235

<212> PRT

<213> Homo sapiens

<400> 1418

Ser Pro Arg Pro Leu Arg Phe Cys Gly Gly Ala Arg Ala Arg Arg Pro
 1 5 10 15

Leu Ser Ala Val Ala Arg Pro Ala Arg Ser Ser Asp Pro Leu Arg Ser
 20 25 30

Ala Pro Leu Gly Pro Ala Pro Pro Val Asn Met Ile Arg Cys Gly Leu
 35 40 45

Ala Cys Glu Arg Cys Arg Trp Ile Leu Pro Leu Leu Leu Leu Ser Ala
 50 55 60

Ile Ala Phe Asp Ile Ile Ala Leu Ala Gly Arg Gly Trp Leu Gln Ser
 65 70 75 80

Ser Asp His Gly Gln Thr Ser Ser Leu Trp Trp Lys Cys Ser Gln Glu
 85 90 95

Gly Gly Gly Ser Gly Ser Tyr Glu Glu Gly Cys Gln Ser Leu Met Glu
 100 105 110

Tyr Ala Trp Gly Arg Ala Ala Ala Ala Met Leu Phe Cys Gly Phe Ile
 115 120 125

Ile Leu Val Ile Cys Phe Ile Leu Ser Phe Phe Ala Leu Cys Gly Pro
 130 135 140

Gln Met Leu Val Phe Leu Arg Val Ile Gly Gly Leu Leu Ala Leu Ala
 145 150 155 160

Ala Val Phe Gln Ile Ile Ser Leu Val Ile Tyr Pro Val Lys Tyr Thr

1491

| | | | | | |
|---|-----|--|-----|--|-----|
| | 165 | | 170 | | 175 |
| Gln Thr Phe Thr Leu His Ala Asn Arg Ala Val Thr Tyr Ile Tyr Asn | | | | | |
| | 180 | | 185 | | 190 |
| Trp Ala Tyr Gly Phe Gly Trp Ala Ala Thr Ile Ile Leu Ile Gly Cys | | | | | |
| | 195 | | 200 | | 205 |
| Ala Phe Phe Phe Cys Cys Leu Pro Asn Tyr Glu Asp Asp Leu Leu Gly | | | | | |
| | 210 | | 215 | | 220 |
| Asn Ala Lys Pro Arg Tyr Phe Tyr Thr Ser Ala | | | | | |
| | 225 | | 230 | | 235 |

<210> 1419

<211> 86

<212> PRT

<213> Homo sapiens

<400> 1419

| | | | | | |
|---|----|--|----|--|----|
| Arg Arg Gln Ala Leu Gln Glu Arg Cys Pro Phe Asn Pro Leu Ser Ala | | | | | |
| 1 | 5 | | 10 | | 15 |
| Leu Asp Arg Arg Cys Cys Val Lys Leu Leu Met Asp Ile Tyr Met Arg | | | | | |
| | 20 | | 25 | | 30 |
| Ser Ser Phe Leu Tyr Ala Ile Pro Ala Val Phe Phe Phe Leu Thr Gly | | | | | |
| | 35 | | 40 | | 45 |
| Pro Cys Leu Arg Ile Asn Lys Ser Val Met Ser Glu Thr Lys Val Tyr | | | | | |
| | 50 | | 55 | | 60 |
| Ser Ser Val Cys Arg Cys Val Ala Pro Pro Phe Ser Pro Ala Ala Pro | | | | | |
| | 65 | | 70 | | 75 |
| His Ile Gln Ser Arg Ser | | | | | |
| | | | 85 | | |

<210> 1420

<211> 351

<212> PRT

<213> Homo sapiens

<400> 1420

| | | | | |
|---|---|--|----|----|
| Thr Trp Cys Thr Thr Thr Met Leu Ala Ala Arg Leu Val Cys Leu Arg | | | | |
| 1 | 5 | | 10 | 15 |

1492

Thr Leu Pro Ser Arg Val Phe His Pro Ala Phe Thr Lys Ala Ser Pro
 20 25 30

Val Val Lys Asn Ser Ile Thr Lys Asn Gln Trp Leu Leu Thr Pro Ser
 35 40 45

Arg Glu Tyr Ala Thr Lys Thr Arg Ile Gly Ile Arg Arg Gly Arg Thr
 50 55 60

Gly Gln Glu Leu Lys Glu Ala Ala Leu Glu Pro Ser Met Glu Lys Ile
 65 70 75 80

Phe Lys Ile Asp Gln Met Gly Arg Trp Phe Val Ala Gly Gly Ala Ala
 85 90 95

Val Gly Leu Gly Ala Leu Cys Tyr Tyr Gly Leu Gly Leu Ser Asn Glu
 100 105 110

Ile Gly Ala Ile Glu Lys Ala Val Ile Trp Pro Gln Tyr Val Lys Asp
 115 120 125

Arg Ile His Ser Thr Tyr Met Tyr Leu Ala Gly Ser Ile Gly Leu Thr
 130 135 140

Ala Leu Ser Ala Ile Ala Ile Ser Arg Thr Pro Val Leu Met Asn Phe
 145 150 155 160

Met Met Arg Gly Ser Trp Val Thr Ile Gly Val Thr Phe Ala Ala Met
 165 170 175

Val Gly Ala Gly Met Leu Val Arg Ser Ile Pro Tyr Asp Gln Ser Pro
 180 185 190

Gly Pro Lys His Leu Ala Trp Leu Leu His Ser Gly Val Met Gly Ala
 195 200 205

Val Val Ala Pro Leu Thr Ile Leu Gly Gly Pro Leu Leu Ile Arg Ala
 210 215 220

Ala Trp Tyr Thr Ala Gly Ile Val Gly Gly Leu Ser Thr Val Ala Met
 225 230 235 240

Cys Ala Pro Ser Glu Lys Phe Leu Asn Met Gly Ala Pro Leu Gly Val
 245 250 255

Gly Leu Gly Leu Val Phe Val Ser Ser Leu Gly Ser Met Phe Leu Pro
 260 265 270

Pro Thr Thr Val Ala Gly Ala Thr Leu Tyr Ser Val Ala Met Tyr Gly
 275 280 285

1493

Gly Leu Val Leu Phe Ser Met Phe Leu Leu Tyr Asp Thr Gln Lys Val
 290 295 300

Ile Lys Arg Ala Glu Val Ser Pro Met Tyr Gly Val Gln Lys Tyr Asp
 305 310 315 320

Pro Ile Asn Ser Met Leu Ser Ile Tyr Met Asp Thr Leu Asn Ile Phe
 325 330 335

Met Arg Val Ala Thr Met Leu Ala Thr Gly Gly Asn Arg Lys Lys
 340 345 350

<210> 1421

<211> 81

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1421

Cys Gly Xaa Leu Leu Met Ala Gln Gly Leu Ser Ala Ser Ala Leu Glu
 1 5 10 15

Gly Leu Lys Thr Glu Glu Gly Ser Val Arg Gly Ala Leu Pro Ala Val
 20 25 30

Ser Ser Pro Pro Ala Pro Val Ser Pro Ser Ser Pro Thr Thr His Asn
 35 40 45

Gly Glu Leu Glu Pro Ser Phe Ser Pro Leu Leu Gly Glu Gly Lys Thr
 50 55 60

Pro Glu Thr Leu Leu Pro Gln Lys Cys Trp Gly Gln Gly Gly Pro Gly
 65 70 75 80

Arg

<210> 1422

<211> 484

<212> PRT

<213> Homo sapiens

<400> 1422

1494

Ala Cys Arg Ser Thr Leu Val Asp Pro Lys Asn Ser Ala Gln Glu Arg
 1 5 10 15
 Arg Ala Leu Gly Pro Leu Pro Pro Cys Ser Phe Ala Leu Gln Leu Gly
 20 25 30
 Met Ala Gly Tyr Leu Arg Val Val Arg Ser Leu Cys Arg Ala Ser Gly
 35 40 45
 Ser Arg Pro Ala Trp Ala Pro Ala Ala Leu Thr Ala Pro Thr Ser Gln
 50 55 60
 Glu Gln Pro Arg Arg His Tyr Ala Asp Lys Arg Ile Lys Val Ala Lys
 65 70 75 80
 Pro Val Val Glu Met Asp Gly Asp Glu Met Thr Arg Ile Ile Trp Gln
 85 90 95
 Phe Ile Lys Glu Lys Leu Ile Leu Pro His Val Asp Ile Gln Leu Lys
 100 105 110
 Tyr Phe Asp Leu Gly Leu Pro Asn Arg Asp Gln Thr Asp Asp Gln Val
 115 120 125
 Thr Ile Asp Ser Ala Leu Ala Thr Gln Lys Tyr Ser Val Ala Val Lys
 130 135 140
 Cys Ala Thr Ile Thr Pro Asp Glu Ala Arg Val Glu Glu Phe Lys Leu
 145 150 155 160
 Lys Lys Met Trp Lys Ser Pro Asn Gly Thr Ile Arg Asn Ile Leu Gly
 165 170 175
 Gly Thr Val Phe Arg Glu Pro Ile Ile Cys Lys Asn Ile Pro Arg Leu
 180 185 190
 Val Pro Gly Trp Thr Lys Pro Ile Thr Ile Gly Arg His Ala His Gly
 195 200 205
 Asp Gln Tyr Lys Ala Thr Asp Phe Val Ala Asp Arg Ala Gly Thr Phe
 210 215 220
 Lys Met Val Phe Thr Pro Lys Asp Gly Ser Gly Val Lys Glu Trp Glu
 225 230 235 240
 Val Tyr Asn Phe Pro Ala Gly Gly Val Gly Met Gly Met Tyr Asn Thr
 245 250 255
 Asp Glu Ser Ile Ser Gly Phe Ala His Ser Cys Phe Gln Tyr Ala Ile
 260 265 270

1495

Gln Lys Lys Trp Pro Leu Tyr Met Ser Thr Lys Asn Thr Ile Leu Lys
 275 280 285
 Ala Tyr Asp Gly Arg Phe Lys Asp Ile Phe Gln Glu Ile Phe Asp Lys
 290 295 300
 His Tyr Lys Thr Asp Phe Asp Lys Asn Lys Ile Trp Tyr Glu His Arg
 305 310 315 320
 Leu Ile Asp Asp Met Val Ala Gln Val Leu Lys Ser Ser Gly Gly Phe
 325 330 335
 Val Trp Ala Cys Lys Asn Tyr Asp Gly Asp Val Gln Ser Asp Ile Leu
 340 345 350
 Ala Gln Gly Phe Gly Ser Leu Gly Leu Met Thr Ser Val Leu Val Cys
 355 360 365
 Pro Asp Gly Lys Thr Ile Glu Ala Glu Ala Ala His Gly Thr Val Thr
 370 375 380
 Arg His Tyr Arg Glu His Gln Lys Gly Arg Pro Thr Ser Thr Asn Pro
 385 390 395 400
 Ile Ala Ser Ile Phe Ala Trp Thr Arg Gly Leu Glu His Arg Gly Lys
 405 410 415
 Leu Asp Gly Asn Gln Asp Leu Ile Arg Phe Ala Gln Met Leu Glu Lys
 420 425 430
 Val Cys Val Glu Thr Val Glu Ser Gly Ala Met Thr Lys Asp Leu Ala
 435 440 445
 Gly Cys Ile His Gly Leu Ser Asn Val Lys Leu Asn Glu His Phe Leu
 450 455 460
 Asn Thr Thr Asp Phe Leu Asp Thr Ile Lys Ser Asn Leu Asp Arg Ala
 465 470 475 480
 Leu Gly Arg Gln

<210> 1423

<211> 240

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

1496

<222> (153)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1423

Val Arg Ile Pro Gly Ser Thr His Ala Ser Gly Gly Gly Asp Gly Asp
 1 5 10 15

Met Glu Ser Gly Ala Tyr Gly Ala Ala Lys Ala Gly Gly Ser Phe Asp
 20 25 30

Leu Arg Arg Phe Leu Thr Gln Pro Gln Val Val Ala Arg Ala Val Cys
 35 40 45

Leu Val Phe Ala Leu Ile Val Phe Ser Cys Ile Tyr Gly Glu Gly Tyr
 50 55 60

Ser Asn Ala His Glu Ser Lys Gln Met Tyr Cys Val Phe Asn Arg Asn
 65 70 75 80

Glu Asp Ala Cys Arg Tyr Gly Ser Ala Ile Gly Val Leu Ala Phe Leu
 85 90 95

Ala Ser Ala Phe Phe Leu Val Val Asp Ala Tyr Phe Pro Gln Ile Ser
 100 105 110

Asn Ala Thr Asp Arg Lys Tyr Leu Val Ile Gly Asp Leu Leu Phe Ser
 115 120 125

Ala Leu Trp Thr Phe Leu Trp Phe Val Gly Phe Cys Phe Leu Thr Asn
 130 135 140

Gln Trp Ala Val Thr Asn Pro Lys Xaa Val Leu Val Gly Ala Asp Ser
 145 150 155 160

Val Arg Ala Ala Ile Thr Phe Ser Phe Phe Ser Ile Phe Ser Trp Gly
 165 170 175

Val Leu Ala Ser Leu Ala Tyr Gln Arg Tyr Lys Ala Gly Val Asp Asp
 180 185 190

Phe Ile Gln Asn Tyr Val Asp Pro Thr Pro Asp Pro Asn Thr Ala Tyr
 195 200 205

Ala Ser Tyr Pro Gly Ala Ser Val Asp Asn Tyr Gln Gln Pro Pro Phe
 210 215 220

Thr Gln Asn Ala Glu Thr Thr Glu Gly Tyr Gln Pro Pro Pro Val Tyr
 225 230 235 240

1497

<210> 1424
 <211> 244
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (59)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (62)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (221)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1424
 Arg Val Arg Arg Gln Ser Ser Gly Asn Leu Thr Met Ala Trp Thr Pro
 1 5 10 15
 Leu Leu Leu Pro Leu Leu Thr Phe Cys Thr Val Ser Glu Ala Ser Tyr
 20 25 30
 Glu Leu Thr Gln Pro Pro Ser Val Ser Val Ser Pro Gly Gln Thr Ala
 35 40 45
 Arg Ile Thr Cys Ser Gly Asp Ala Leu Pro Xaa Lys Tyr Xaa Tyr Trp
 50 55 60
 Tyr Gln Gln Lys Ser Gly Gln Ala Pro Val Leu Val Ile Tyr Glu Asp
 65 70 75 80
 Thr Arg Arg Pro Ser Ala Ile Pro Glu Arg Phe Ser Ala Ser Ser Ser
 85 90 95
 Gly Thr Met Ala Thr Leu Thr Ile Ser Gly Ala Gln Val Glu Asp Glu
 100 105 110
 Ala Asp Tyr Tyr Cys Tyr Ser Thr Asp Ser Ser Ser Tyr Tyr Arg Val
 115 120 125
 Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly Gln Pro Lys Ala Ala
 130 135 140

1498

Pro Ser Val Thr Leu Phe Pro Pro Ser Ser Glu Glu Leu Gln Ala Asn
145 150 155 160

Lys Ala Thr Leu Val Cys Leu Ile Ser Asp Phe Tyr Pro Gly Ala Val
165 170 175

Thr Val Ala Trp Lys Ala Asp Ser Ser Pro Val Lys Ala Gly Val Glu
180 185 190

Thr Thr Thr Pro Ser Lys Gln Ser Asn Asn Lys Tyr Ala Ala Ser Ser
195 200 205

Tyr Leu Ser Leu Thr Pro Glu Gln Trp Lys Ser His Xaa Ser Tyr Ser
210 215 220

Cys Gln Val Thr His Glu Gly Ser Thr Val Glu Lys Thr Val Ala Pro
225 230 235 240

Thr Glu Cys Ser

<210> 1425

<211> 173

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (115)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (136)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (137)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (159)

1499

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1425

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Val | Arg | Val | Gln | Thr | Arg | Gly | Ser | Ala | Asp | Pro | Ala | Gln | Leu | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | His | Pro | Gly | Tyr | Lys | Arg | Thr | Ala | Ser | Ala | Thr | Leu | Ser | Asp | Pro |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Ala | Ala | Ala | Met | Gln | Pro | Ser | Ser | Leu | Leu | Pro | Leu | Ala | Leu | Cys |
| | | | 35 | | | | | 40 | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Leu | Ala | Ala | Pro | Ala | Ser | Ala | Leu | Val | Arg | Ile | Pro | Leu | His | Lys |
| | | | 50 | | | | 55 | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Thr | Ser | Ile | Arg | Arg | Thr | Met | Ser | Glu | Val | Gly | Gly | Ser | Val | Glu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Leu | Ile | Ala | Lys | Gly | Pro | Val | Ser | Lys | Tyr | Ser | Gln | Ala | Val | Pro |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Val | Thr | Glu | Gly | Pro | Ile | Pro | Glu | Val | Leu | Lys | Asn | Tyr | Met | Asp |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Gln | Xaa | Tyr | Gly | Glu | Ile | Gly | Ile | Gly | Thr | Pro | Pro | Gln | Cys | Phe |
| | | | 115 | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Val | Val | Phe | Asp | Thr | Gly | Xaa | Xaa | Asn | Leu | Trp | Val | Pro | Ser | Ile |
| | | | 130 | | | | 135 | | | | 140 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Cys | Lys | Leu | Leu | Asp | Ile | Ala | Cys | Trp | Ile | His | His | Lys | Xaa | Asn |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |

| | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Asp | Lys | Ser | Ser | Asn | Tyr | Val | Lys | Asn | Gly | Asn | Ser |
| | | | | 165 | | | | | 170 | | | |

<210> 1426

<211> 351

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (35)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1426

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Arg | His | Glu | Ile | Leu | Trp | Leu | Leu | Cys | Ser | His | Arg | Pro | Ala | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

1500

Gly Arg Pro Pro Thr His Asn Ala His Asn Trp Arg Leu Gly Gln Ala
 20 25 30

Pro Ala Xaa Trp Tyr Asn Asp Thr Tyr Pro Leu Ser Pro Pro Gln Arg
 35 40 45

Thr Pro Ala Gly Ile Arg Tyr Arg Ile Ala Val Ile Ala Asp Leu Asp
 50 55 60

Thr Glu Ser Arg Ala Gln Glu Glu Asn Thr Trp Phe Ser Tyr Leu Lys
 65 70 75 80

Lys Gly Tyr Leu Thr Leu Ser Asp Ser Gly Asp Lys Val Ala Val Glu
 85 90 95

Trp Asp Lys Asp His Gly Val Leu Glu Ser His Leu Ala Glu Lys Gly
 100 105 110

Arg Gly Met Glu Leu Ser Asp Leu Ile Val Phe Asn Gly Lys Leu Tyr
 115 120 125

Ser Val Asp Asp Arg Thr Gly Val Val Tyr Gln Ile Glu Gly Ser Lys
 130 135 140

Ala Val Pro Trp Val Ile Leu Ser Asp Gly Asp Gly Thr Val Glu Lys
 145 150 155 160

Gly Phe Lys Ala Glu Trp Leu Ala Val Lys Asp Glu Arg Leu Tyr Val
 165 170 175

Gly Gly Leu Gly Lys Glu Trp Thr Thr Thr Thr Gly Asp Val Val Asn
 180 185 190

Glu Asn Pro Glu Trp Val Lys Val Val Gly Tyr Lys Gly Ser Val Asp
 195 200 205

His Glu Asn Trp Val Ser Asn Tyr Asn Ala Leu Arg Ala Ala Ala Gly
 210 215 220

Ile Gln Pro Pro Gly Tyr Leu Ile His Glu Ser Ala Cys Trp Ser Asp
 225 230 235 240

Thr Leu Gln Arg Trp Phe Phe Leu Pro Arg Arg Ala Ser Gln Glu Arg
 245 250 255

Tyr Ser Glu Lys Asp Asp Glu Arg Lys Gly Ala Asn Leu Leu Leu Ser
 260 265 270

Ala Ser Pro Asp Phe Gly Asp Ile Ala Val Ser His Val Gly Ala Val
 275 280 285

1501

Val Pro Thr His Gly Phe Ser Ser Phe Lys Phe Ile Pro Asn Thr Asp
 290 295 300

Asp Gln Ile Ile Val Ala Leu Lys Ser Glu Glu Asp Ser Gly Arg Val
 305 310 315 320

Ala Ser Tyr Ile Met Ala Phe Thr Leu Asp Gly Arg Phe Leu Leu Pro
 325 330 335

Glu Thr Lys Ile Gly Ser Val Lys Tyr Glu Gly Ile Glu Phe Ile
 340 345 350

<210> 1427

<211> 510

<212> PRT

<213> Homo sapiens

<400> 1427

Glu Arg Ser Trp Phe Ala Gln Val Arg Arg Leu Gly Pro His Gly Ala
 1 5 10 15

Val Ala Arg Leu Arg Val Arg Gly Leu Pro Gly Ala Gly Arg Gly Leu
 20 25 30

Arg Leu Pro Ala Gly Ala Arg Ala Ala Arg Leu Gly Ala Ala Leu Ser
 35 40 45

Leu Glu Leu Ala Val Ser Gly Ala Arg Ala Cys Ala Pro Gly Thr Arg
 50 55 60

Leu Pro Arg Gly Pro Val Gly Gly Ser Trp Asp Ala Leu Ile Val Arg
 65 70 75 80

Pro Val Arg Arg Trp Arg Arg Val Ala Val Gly Val Asn Ala Cys Val
 85 90 95

Asp Val Val Leu Ser Gly Val Lys Leu Leu Gln Ala Leu Gly Leu Ser
 100 105 110

Pro Gly Asn Gly Lys Asp His Ser Ile Leu His Ser Arg Asn Asp Leu
 115 120 125

Glu Glu Ala Phe Ile His Phe Met Gly Lys Gly Ala Ala Ala Glu Arg
 130 135 140

Phe Phe Ser Asp Lys Glu Thr Phe His Asp Ile Ala Gln Val Ala Ser
 145 150 155 160

1502

Glu Phe Pro Gly Ala Gln His Tyr Val Gly Gly Asn Ala Ala Leu Ile
 165 170 175

Gly Gln Lys Phe Ala Ala Asn Ser Asp Leu Lys Val Leu Leu Cys Gly
 180 185 190

Pro Val Gly Pro Lys Leu His Glu Leu Leu Asp Asp Asn Val Phe Val
 195 200 205

Pro Pro Glu Ser Leu Gln Glu Val Asp Glu Phe His Leu Ile Leu Glu
 210 215 220

Tyr Gln Ala Gly Glu Glu Trp Gly Gln Leu Lys Ala Pro His Ala Asn
 225 230 235 240

Arg Phe Ile Phe Ser His Asp Leu Ser Asn Gly Ala Met Asn Met Leu
 245 250 255

Glu Val Phe Val Ser Ser Leu Glu Glu Phe Gln Pro Asp Leu Val Val
 260 265 270

Leu Ser Gly Leu His Met Met Glu Gly Gln Ser Lys Glu Leu Gln Arg
 275 280 285

Lys Arg Leu Leu Glu Val Val Thr Ser Ile Ser Asp Ile Pro Thr Gly
 290 295 300

Ile Pro Val His Leu Glu Leu Ala Ser Met Thr Asn Arg Glu Leu Met
 305 310 315 320

Ser Ser Ile Val His Gln Gln Val Phe Pro Ala Val Thr Ser Leu Gly
 325 330 335

Leu Asn Glu Gln Glu Leu Leu Phe Leu Thr Gln Ser Ala Ser Gly Pro
 340 345 350

His Ser Ser Leu Ser Ser Trp Asn Gly Val Pro Asp Val Gly Met Val
 355 360 365

Ser Asp Ile Leu Phe Trp Ile Leu Lys Glu His Gly Arg Ser Lys Ser
 370 375 380

Arg Ala Ser Asp Leu Thr Arg Ile His Phe His Thr Leu Val Tyr His
 385 390 395 400

Ile Leu Ala Thr Val Asp Gly His Trp Ala Asn Gln Leu Ala Ala Val
 405 410 415

Ala Ala Gly Ala Arg Val Ala Gly Thr Gln Ala Cys Ala Thr Glu Thr
 420 425 430

1503

Ile Asp Thr Ser Arg Val Ser Leu Arg Ala Pro Gln Glu Phe Met Thr
 435 440 445

Ser His Ser Glu Ala Gly Ser Arg Ile Val Leu Asn Pro Asn Lys Pro
 450 455 460

Val Val Glu Trp His Arg Glu Gly Ile Ser Phe His Phe Thr Pro Val
 465 470 475 480

Leu Val Cys Lys Asp Pro Ile Arg Thr Val Gly Leu Gly Asp Ala Ile
 485 490 495

Ser Ala Glu Gly Leu Phe Tyr Ser Glu Val His Pro His Tyr
 500 505 510

<210> 1428

<211> 316

<212> PRT

<213> Homo sapiens

<400> 1428

Pro Pro Leu Pro Pro Arg Ser Phe Pro Asn Leu Phe Ser Arg Pro Glu
 1 5 10 15

Pro Leu Pro Glu Pro Gly Arg Arg Gly Cys Asn Arg Ser Arg Glu Pro
 20 25 30

Ala Ala Arg Ala Pro Ser Pro Pro Pro Phe Glu Gly Ala Pro Gly
 35 40 45

Arg Ala Met Val Lys Val Thr Phe Asn Ser Ala Leu Ala Gln Lys Glu
 50 55 60

Ala Lys Lys Asp Glu Pro Lys Ser Gly Glu Glu Ala Leu Ile Ile Pro
 65 70 75 80

Pro Asp Ala Val Ala Val Asp Cys Lys Asp Pro Asp Asp Val Val Pro
 85 90 95

Val Gly Gln Arg Arg Ala Trp Cys Trp Cys Met Cys Phe Gly Leu Ala
 100 105 110

Phe Met Leu Ala Gly Val Ile Leu Gly Gly Ala Tyr Leu Tyr Lys Tyr
 115 120 125

Phe Ala Leu Gln Pro Asp Asp Val Tyr Tyr Cys Gly Ile Lys Tyr Ile
 130 135 140

Lys Asp Asp Val Ile Leu Asn Glu Pr Ser Ala Asp Ala Pro Ala Ala

1504

145 150 155 160
 Leu Tyr Gln Thr Ile Glu Glu Asn Ile Lys Ile Phe Glu Glu Glu Glu
 165 170 175
 Val Glu Phe Ile Ser Val Pro Val Pro Glu Phe Ala Asp Ser Asp Pro
 180 185 190
 Ala Asn Ile Val His Asp Phe Asn Lys Lys Leu Thr Ala Tyr Leu Asp
 195 200 205
 Leu Asn Leu Asp Lys Cys Tyr Val Ile Pro Leu Asn Thr Ser Ile Val
 210 215 220
 Met Pro Pro Arg Asn Leu Leu Glu Leu Leu Ile Asn Ile Lys Ala Gly
 225 230 235 240
 Thr Tyr Leu Pro Gln Ser Tyr Leu Ile His Glu His Met Val Ile Thr
 245 250 255
 Asp Arg Ile Glu Asn Ile Asp His Leu Gly Phe Phe Ile Tyr Arg Leu
 260 265 270
 Cys His Asp Lys Glu Thr Tyr Lys Leu Gln Arg Arg Glu Thr Ile Lys
 275 280 285
 Gly Ile Gln Lys Arg Glu Ala Ser Asn Cys Phe Ala Ile Arg His Phe
 290 295 300
 Glu Asn Lys Phe Ala Val Glu Thr Leu Ile Cys Ser
 305 310 315

<210> 1429

<211> 398

<212> PRT

<213> Homo sapiens

<400> 1429

His Thr Arg Val Asp Phe Asn Val Pro Met Lys Asn Asn Gln Ile Thr
 1 5 10 15

Asn Asn Gln Arg Ile Lys Ala Ala Val Pro Ser Ile Lys Phe Cys Leu
 20 25 30

Asp Asn Gly Ala Lys Ser Val Val Leu Met Ser His Leu Gly Arg Pro
 35 40 45

Asp Gly Val Pro Met Pro Asp Lys Tyr Ser Leu Glu Pro Val Ala Val
 50 55 60

1505

Glu Leu Lys Ser Leu Leu Gly Lys Asp Val Leu Phe Leu Lys Asp Cys
 65 70 75 80

Val Gly Pro Glu Val Glu Lys Ala Cys Ala Asn Pro Ala Ala Gly Ser
 85 90 95

Val Ile Leu Leu Glu Asn Leu Arg Phe His Val Glu Glu Glu Gly Lys
 100 105 110

Gly Lys Asp Ala Ser Gly Asn Lys Val Lys Ala Glu Pro Ala Lys Ile
 115 120 125

Glu Ala Phe Arg Ala Ser Leu Ser Lys Leu Gly Asp Val Tyr Val Asn
 130 135 140

Asp Ala Phe Gly Thr Ala His Arg Ala His Ser Ser Met Val Gly Val
 145 150 155 160

Asn Leu Pro Gln Lys Ala Gly Gly Phe Leu Met Lys Lys Glu Leu Asn
 165 170 175

Tyr Phe Ala Lys Ala Leu Glu Ser Pro Glu Arg Pro Phe Leu Ala Ile
 180 185 190

Leu Gly Gly Ala Lys Val Ala Asp Lys Ile Gln Leu Ile Asn Asn Met
 195 200 205

Leu Asp Lys Val Asn Glu Met Ile Ile Gly Gly Gly Met Ala Phe Thr
 210 215 220

Phe Leu Lys Val Leu Asn Asn Met Glu Ile Gly Thr Ser Leu Phe Asp
 225 230 235 240

Glu Glu Gly Ala Lys Ile Val Lys Asp Leu Met Ser Lys Ala Glu Lys
 245 250 255

Asn Gly Val Lys Ile Thr Leu Pro Val Asp Phe Val Thr Ala Asp Lys
 260 265 270

Phe Asp Glu Asn Ala Lys Thr Gly Gln Ala Thr Val Ala Ser Gly Ile
 275 280 285

Pro Ala Gly Trp Met Gly Leu Asp Cys Gly Pro Glu Ser Ser Lys Lys
 290 295 300

Tyr Ala Glu Ala Val Thr Arg Ala Lys Gln Ile Val Trp Asn Gly Pro
 305 310 315 320

Val Gly Val Phe Glu Trp Glu Ala Phe Ala Arg Gly Thr Lys Ala Leu
 325 330 335

1506

Met Asp Glu Val Val Lys Ala Thr Ser Arg Gly Cys Ile Thr Ile Ile
 340 345 350

Gly Gly Gly Asp Thr Ala Thr Cys Cys Ala Lys Trp Asn Thr Glu Asp
 355 360 365

Lys Val Ser His Val Ser Thr Gly Gly Gly Ala Ser Leu Glu Leu Leu
 370 375 380

Glu Gly Lys Val Leu Pro Gly Val Asp Ala Leu Ser Asn Ile
 385 390 395

<210> 1430

<211> 249

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (245)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1430

Pro Ala Met Gly Ala Ala Val Phe Phe Gly Cys Thr Phe Val Ala Phe
 1 5 10 15

Gly Pro Ala Phe Ala Leu Phe Leu Ile Thr Val Ala Gly Asp Pro Leu
 20 25 30

Arg Val Ile Ile Leu Val Ala Gly Ala Phe Phe Trp Leu Val Ser Leu
 35 40 45

Leu Leu Ala Ser Val Val Trp Phe Ile Leu Val His Val Thr Asp Arg
 50 55 60

Ser Asp Ala Arg Leu Gln Tyr Gly Leu Leu Ile Phe Gly Ala Ala Val
 65 70 75 80

Ser Val Leu Leu Gln Glu Val Phe Arg Phe Ala Tyr Tyr Lys Leu Leu
 85 90 95

Lys Lys Ala Asp Glu Gly Leu Ala Ser Leu Ser Glu Asp Gly Arg Ser
 100 105 110

Pro Ile Ser Ile Arg Gln Met Ala Tyr Val Ser Gly Leu Ser Phe Gly
 115 120 125

Ile Ile Ser Gly Val Phe Ser Val Ile Asn Ile Leu Ala Asp Ala Leu

1507

130 135 140
 Gly Pro Gly Val Val Gly Ile His Gly Asp Ser Pro Tyr Tyr Phe Leu
 145 150 155 160
 Thr Ser Ala Phe Leu Thr Ala Ala Ile Ile Leu Leu His Thr Phe Trp
 165 170 175
 Gly Val Val Phe Phe Asp Ala Cys Glu Arg Arg Arg Tyr Trp Ala Leu
 180 185 190
 Gly Leu Val Val Gly Ser His Leu Leu Thr Ser Gly Leu Thr Phe Leu
 195 200 205
 Asn Pro Trp Tyr Glu Ala Ser Leu Leu Pro Ile Tyr Ala Val Thr Val
 210 215 220
 Ser Met Gly Leu Trp Ala Phe Ile Thr Ala Gly Gly Ser Leu Arg Ser
 225 230 235 240
 Ile Gln Arg Ser Xaa Leu Cys Lys Asp
 245

<210> 1431

<211> 271

<212> PRT

<213> Homo sapiens

<400> 1431

Arg Pro Thr Arg Pro Val Met Ala Pro Arg Ser Leu Leu Leu Leu Leu
 1 5 10 15
 Ser Gly Ala Leu Ala Leu Thr Asp Thr Trp Ala Gly Ser His Ser Leu
 20 25 30
 Arg Tyr Phe Ser Thr Ala Val Ser Arg Pro Gly Arg Gly Glu Pro Arg
 35 40 45
 Tyr Ile Ala Val Glu Tyr Val Asp Asp Thr Gln Phe Leu Arg Phe Asp
 50 55 60
 Ser Asp Ala Ala Ile Pro Arg Met Glu Pro Arg Glu Pro Trp Val Glu
 65 70 75 80
 Gln Glu Gly Pro Gln Tyr Trp Glu Trp Thr Thr Gly Tyr Ala Lys Ala
 85 90 95
 Asn Ala Gln Thr Asp Arg Val Ala Leu Arg Asn Leu Leu Arg Arg Tyr
 100 105 110

1508

Asn Gln Ser Glu Ala Gly Ser His Thr Leu Gln Gly Met Asn Gly Cys
 115 120 125
 Asp Met Gly Pro Asp Gly Arg Leu Leu Arg Gly Tyr His Gln His Ala
 130 135 140
 Tyr Asp Gly Lys Asp Tyr Ile Ser Leu Asn Glu Asp Leu Arg Ser Trp
 145 150 155 160
 Thr Ala Ala Asp Thr Val Ala Gln Ile Thr Gln Arg Phe Tyr Glu Ala
 165 170 175
 Glu Glu Tyr Ala Glu Glu Phe Arg Thr Tyr Leu Glu Gly Glu Cys Leu
 180 185 190
 Glu Leu Leu Arg Arg Tyr Leu Glu Asn Gly Lys Glu Thr Leu Gln Arg
 195 200 205
 Ala Asp Pro Pro Lys Ala His Val Ala His His Pro Ile Ser Asp His
 210 215 220
 Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe Tyr Pro Ala Glu Ile
 225 230 235 240
 Thr Leu Thr Trp Gln Arg Asp Gly Glu Glu Gln Thr Gln Asp Thr Glu
 245 250 255
 Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr Phe Arg Ser Gly
 260 265 270

<210> 1432

<211> 455

<212> PRT

<213> Homo sapiens

<400> 1432

Ala His Ala Ser Gly Ala Pro Glu Gln Arg Pro Arg Pro Pro Arg Leu
 1 5 10 15
 Leu Arg Arg Asp Leu Glu Arg Lys Thr Pro Ala Arg Arg Pro Ala Leu
 20 25 30
 Ala Ser Leu Pro Thr Gly His Thr Ala Pro Pro Pro Arg Pro Arg Cys
 35 40 45
 Ala Arg Pro Val Arg Cys Thr Pro Ala Cys Trp Arg Leu Arg Arg Arg
 50 55 60

1509

Ala Arg Pro Gly Leu Leu Leu Arg Ala Thr Met Ser Ser Arg Ile Ala
 65 70 75 80

Arg Ala Leu Ala Leu Val Val Thr Leu Leu His Leu Thr Arg Leu Ala
 85 90 95

Leu Ser Thr Cys Pro Ala Ala Cys His Cys Pro Leu Glu Ala Pro Lys
 100 105 110

Cys Ala Pro Gly Val Gly Leu Val Arg Asp Gly Cys Gly Cys Cys Lys
 115 120 125

Val Cys Ala Lys Gln Leu Asn Glu Asp Cys Ser Lys Thr Gln Pro Cys
 130 135 140

Asp His Thr Lys Gly Leu Glu Cys Asn Phe Gly Ala Ser Ser Thr Ala
 145 150 155 160

Leu Lys Gly Ile Cys Arg Ala Gln Ser Glu Gly Arg Pro Cys Glu Tyr
 165 170 175

Asn Ser Arg Ile Tyr Gln Asn Gly Glu Ser Phe Gln Pro Asn Cys Lys
 180 185 190

His Gln Cys Thr Cys Ile Asp Gly Ala Val Gly Cys Ile Pro Leu Cys
 195 200 205

Pro Gln Glu Leu Ser Leu Pro Asn Leu Gly Cys Pro Asn Pro Arg Leu
 210 215 220

Val Lys Val Thr Gly Gln Cys Cys Glu Glu Trp Val Cys Asp Glu Asp
 225 230 235 240

Ser Ile Lys Asp Pro Met Glu Asp Gln Asp Gly Leu Leu Gly Lys Glu
 245 250 255

Leu Gly Phe Asp Ala Ser Glu Val Glu Leu Thr Arg Asn Asn Glu Leu
 260 265 270

Ile Ala Val Gly Lys Gly Ser Ser Leu Lys Arg Leu Pro Val Phe Gly
 275 280 285

Met Glu Pro Arg Ile Leu Tyr Asn Pro Leu Gln Gly Gln Lys Cys Ile
 290 295 300

Val Gln Thr Thr Ser Trp Ser Gln Cys Ser Lys Thr Cys Gly Thr Gly
 305 310 315 320

Ile Ser Thr Arg Val Thr Asn Asp Asn Pro Glu Cys Arg Leu Val Lys
 325 330 335

1510

Glu Thr Arg Ile Cys Glu Val Arg Pro Cys Gly Gln Pro Val Tyr Ser
 340 345 350

Ser Leu Lys Lys Gly Lys Lys Cys Ser Lys Thr Lys Lys Ser Pro Glu
 355 360 365

Pro Val Arg Phe Thr Tyr Ala Gly Cys Leu Ser Val Lys Lys Tyr Arg
 370 375 380

Pro Lys Tyr Cys Gly Ser Cys Val Asp Gly Arg Cys Cys Thr Pro Gln
 385 390 395 400

Leu Thr Arg Thr Val Lys Met Arg Phe Arg Cys Glu Asp Gly Glu Thr
 405 410 415

Phe Ser Lys Asn Val Met Met Ile Gln Ser Cys Lys Cys Asn Tyr Asn
 420 425 430

Cys Pro His Ala Asn Glu Ala Ala Phe Pro Phe Tyr Arg Leu Phe Asn
 435 440 445

Asp Ile His Lys Phe Arg Asp
 450 455

<210> 1433

<211> 87

<212> PRT

<213> Homo sapiens

<400> 1433

Thr Glu Gly Glu Thr Trp Arg Ser Asp Ser Glu Val Arg Leu Gln Leu
 1 5 10 15

Ala His His Leu Arg Pro Gly Pro Asp Glu Pro Pro Val Ala Ser Ala
 20 25 30

Gly Ala Ala Ala Ala Ser Arg Gly Ala Cys Gly Pro Ser His Ser Arg
 35 40 45

His Cys Leu Pro Ala Gly Leu Glu Pro Ser Glu Arg Pro Asn Pro Arg
 50 55 60

Pro Gly Arg Asp Leu Arg Gly Met Thr Ala Glu Pro Pro Lys Gly Gly
 65 70 75 80

Glu Phe Glu Gly Arg Gly Pro
 85

1511

<210> 1434

<211> 110

<212> PRT

<213> Homo sapiens

<400> 1434

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Trp | Arg | Ala | Gly | Ala | Gly | Met | Ala | Ser | Leu | Arg | Ser | Gln | His | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Pro | Gly | Ala | Pro | Glu | Ser | Leu | Arg | Lys | Val | Leu | Met | Pro | Ser | Ser | Met |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gly | Leu | Leu | Leu | Ile | Leu | Tyr | Ala | Arg | Leu | Pro | Pro | Ser | Leu | Val | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gln | Ala | Gly | Arg | Trp | Ile | Gly | Trp | Ala | Gly | Arg | Ala | Gly | Gly | Gln | Ala |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Val | Arg | Gln | Pro | Ser | Pro | Thr | Val | Leu | Ile | Asp | Gly | Val | Glu | Cys | Ser |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Asp | Val | Lys | Phe | Phe | Gln | Leu | Ala | Ala | Gln | Trp | Ser | Ser | His | Val | Lys |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| His | Phe | Pro | Ile | Cys | Ile | Phe | Gly | His | Ser | Lys | Ala | Thr | Phe | | |
| | | | 100 | | | | | 105 | | | | | 110 | | |

<210> 1435

<211> 103

<212> PRT

<213> Homo sapiens

<400> 1435

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Ser | Gln | Asp | Ala | Arg | Arg | Gly | Ser | Gly | Leu | Gly | Val | Ser | Ser | Phe |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Arg | Gly | Ser | Gly | Gly | Ser | Gly | Pro | Leu | Trp | Val | Gln | His | Gly | Lys |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Arg | Gly | Arg | Tyr | Phe | Ser | Ser | Trp | Ala | Phe | Ile | Lys | Glu | Lys | Thr | Met |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Leu | Ala | Gly | Arg | Gly | Gly | Ser | Arg | Leu | Gln | Ser | Gln | His | Phe | Gly | Arg |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Pro | Arg | Arg | Val | Asp | His | Leu | Arg | Ser | Gly | Val | Gln | Asp | Gln | Pro | Gly |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |

1512

Gln His Gly Glu Thr Pro Ser Leu Leu Lys Asn Thr Lys Ile Ser Gln
 85 90 95

Val Trp Trp Leu Thr Leu Met
 100

<210> 1436

<211> 413

<212> PRT

<213> Homo sapiens

<400> 1436

Asn Glu Cys Thr Gly Pro Glu Phe Arg Val Asp Pro Arg Val Ala Ser
 1 5 10 15

Ala Pro Arg Ala Gln Ser Leu Ala Phe Ala Asp Pro Pro Pro Val His
 20 25 30

Thr Arg Arg Gln Leu Thr Met Asp Asp Asp Ile Ala Ala Leu Val Val
 35 40 45

Asp Asn Gly Ser Gly Met Cys Lys Ala Gly Phe Ala Gly Asp Asp Ala
 50 55 60

Pro Arg Ala Val Phe Pro Ser Ile Val Gly Arg Pro Arg His Gln Gly
 65 70 75 80

Val Met Val Gly Met Gly Gln Lys Asp Ser Tyr Val Gly Asp Glu Ala
 85 90 95

Gln Ser Lys Arg Gly Ile Leu Thr Leu Lys Tyr Pro Ile Glu His Gly
 100 105 110

Ile Val Thr Asn Trp Asp Asp Met Glu Lys Ile Trp His His Thr Phe
 115 120 125

Tyr Asn Glu Leu Arg Val Ala Pro Glu Glu His Pro Val Leu Leu Thr
 130 135 140

Glu Ala Pro Leu Asn Pro Lys Ala Asn Arg Glu Lys Met Thr Gln Ile
 145 150 155 160

Met Phe Glu Thr Phe Asn Thr Pro Ala Met Tyr Val Ala Ile Gln Ala
 165 170 175

Val Leu Ser Leu Tyr Ala Ser Gly Arg Thr Thr Gly Ile Val Met Asp
 180 185 190

Ser Gly Asp Gly Val Thr His Thr Val Pro Ile Tyr Glu Gly Tyr Ala

1513

| 195 | 200 | 205 |
|--|-----|-----|
| Leu Pro His Ala Ile Leu Arg Leu Asp Leu Ala Gly Arg Asp Leu Thr 210 215 220 | | |
| Asp Tyr Leu Met Lys Ile Leu Thr Glu Arg Gly Tyr Ser Phe Thr Thr 225 230 235 240 | | |
| Thr Ala Glu Arg Glu Ile Val Arg Asp Ile Lys Glu Lys Leu Cys Tyr 245 250 255 | | |
| Val Ala Leu Asp Phe Glu Gln Glu Met Ala Thr Ala Ala Ser Ser Ser 260 265 270 | | |
| Ser Leu Glu Lys Ser Tyr Glu Leu Pro Asp Gly Gln Val Ile Thr Ile 275 280 285 | | |
| Gly Asn Glu Arg Phe Arg Cys Pro Glu Ala Leu Phe Gln Pro Ser Phe 290 295 300 | | |
| Leu Gly Met Glu Ser Cys Gly Ile His Glu Thr Thr Phe Asn Ser Ile 305 310 315 320 | | |
| Met Lys Cys Asp Val Asp Ile Arg Lys Asp Leu Tyr Ala Asn Thr Val 325 330 335 | | |
| Leu Ser Gly Gly Thr Thr Met Tyr Pro Gly Ile Ala Asp Arg Met Gln 340 345 350 | | |
| Lys Glu Ile Thr Ala Leu Ala Pro Ser Thr Met Lys Ile Lys Ile Ile 355 360 365 | | |
| Ala Pro Pro Glu Arg Lys Tyr Ser Val Trp Ile Gly Gly Ser Ile Leu 370 375 380 | | |
| Ala Ser Leu Ser Thr Phe Gln Gln Met Trp Ile Ser Lys Gln Glu Tyr 385 390 395 400 | | |
| Asp Glu Ser Gly Pro Ser Ile Val His Arg Lys Cys Phe 405 410 | | |

<210> 1437

<211> 97

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (28)

1514

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1437

Val Val Pro Ser Thr Lys Asp Phe Leu Val Gly Val Lys Gly Ser Gly
 1 5 10 15

Gly His Arg Gly Gly Gly Glu Met Ala Phe Ser Xaa Ser Gln Ala Pro
 20 25 30

Tyr Leu Ser Pro Ala Val Pro Phe Ser Gly Thr Ile Gln Gly Gly Leu
 35 40 45

Gln Asp Gly Leu Gln Ile Thr Val Asn Gly Thr Val Leu Ser Ser Ser
 50 55 60

Gly Thr Ser Gly Asn Asp Ile Ala Phe His Phe Asn Pro Arg Phe Glu
 65 70 75 80

Asp Gly Gly Tyr Val Val Cys Thr Ala Gly Arg Thr Glu Ala Gly Gly
 85 90 95

Pro

<210> 1438

<211> 153

<212> PRT

<213> Homo sapiens

<400> 1438

Leu Ala Pro Leu Arg Cys Gln Pro Gly Thr Arg Thr Gln Pro Arg Ser
 1 5 10 15

His Pro Ala Ala Asn Asp Pro Ser Ala Ala Met Ser Ala Ala Gly Ala
 20 25 30

Arg Gly Leu Arg Ala Thr Tyr His Arg Leu Leu Asp Lys Val Glu Leu
 35 40 45

Met Leu Pro Glu Lys Leu Arg Pro Leu Tyr Asn His Pro Ala Gly Pro
 50 55 60

Arg Thr Val Phe Phe Trp Ala Pro Ile Met Lys Trp Gly Leu Val Cys
 65 70 75 80

Ala Gly Leu Ala Asp Met Ala Arg Pro Ala Glu Lys Leu Ser Thr Ala
 85 90 95

Gln Ser Ala Val Leu Met Ala Thr Gly Phe Ile Trp S r Arg Tyr Ser

1515

| | | |
|---|-----|-----|
| 100 | 105 | 110 |
| Leu Val Ile Ile Pro Lys Asn Trp Ser Leu Phe Ala Val Asn Phe Phe | | |
| 115 | 120 | 125 |
| Val Gly Ala Ala Gly Ala Ser Gln Leu Phe Arg Ile Trp Arg Tyr Asn | | |
| 130 | 135 | 140 |
| Gln Glu Leu Lys Ala Lys Ala His Lys | | |
| 145 | 150 | |

<210> 1439
 <211> 343
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (244)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (305)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (325)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (328)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (340)
 <223> Xaa equals any of the naturally occurring L-amino acids

| | | | | | | | | | | | | | | | |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| <400> 1439 | | | | | | | | | | | | | | | |
| Trp | Ile | Gln | Arg | Ile | Arg | Ala | Arg | Gly | Lys | Thr | Asn | Leu | Arg | Arg | Thr |
| 1 | | | | | 5 | | | | 10 | | | | | 15 | |
| Thr | Tyr | Leu | Val | Leu | Asp | Glu | Ala | Asp | Arg | Met | Leu | Asp | Met | Gly | Phe |
| | | | | 20 | | | | 25 | | | | | 30 | | |

Glu Pro Gln Ile Arg Lys Ile Val Asp Gln Il Arg Pro Asp Arg Gln

1516

| | | |
|---|-----|---------|
| 35 | 40 | 45 |
| Thr Leu Met Trp Ser Ala Thr Trp Pro Lys Glu Val Arg Gln Leu Ala | | |
| 50 | 55 | 60 |
| Glu Asp Phe Leu Lys Asp Tyr Ile His Ile Asn Ile Gly Ala Leu Glu | | |
| 65 | 70 | 75 80 |
| Leu Ser Ala Asn His Asn Ile Leu Gln Ile Val Asp Val Cys His Asp | | |
| | 85 | 90 95 |
| Val Glu Lys Asp Glu Lys Leu Ile Arg Leu Met Glu Glu Ile Met Ser | | |
| | 100 | 105 110 |
| Glu Lys Glu Asn Lys Thr Ile Val Phe Val Glu Thr Lys Arg Arg Cys | | |
| | 115 | 120 125 |
| Asp Glu Leu Thr Arg Lys Met Arg Arg Asp Gly Trp Pro Ala Met Gly | | |
| | 130 | 135 140 |
| Ile His Gly Asp Lys Ser Gln Gln Glu Arg Asp Trp Val Leu Asn Glu | | |
| 145 | 150 | 155 160 |
| Phe Lys His Gly Lys Ala Pro Ile Leu Ile Ala Thr Asp Val Ala Ser | | |
| | 165 | 170 175 |
| Arg Gly Leu Asp Val Glu Asp Val Lys Phe Val Ile Asn Tyr Asp Tyr | | |
| | 180 | 185 190 |
| Pro Asn Ser Ser Glu Asp Tyr Ile His Arg Ile Gly Arg Thr Ala Arg | | |
| | 195 | 200 205 |
| Ser Thr Lys Thr Gly Thr Ala Tyr Thr Phe Phe Thr Pro Asn Asn Ile | | |
| | 210 | 215 220 |
| Lys Gln Val Ser Asp Leu Ile Ser Val Leu Arg Glu Ala Asn Gln Ala | | |
| 225 | 230 | 235 240 |
| Ile Asn Pro Xaa Leu Leu Gln Leu Val Glu Asp Arg Gly Ser Gly Arg | | |
| | 245 | 250 255 |
| Ser Arg Gly Arg Gly Gly Met Lys Asp Asp Arg Arg Asp Arg Tyr Ser | | |
| | 260 | 265 270 |
| Ala Gly Lys Arg Gly Gly Phe Asn Thr Phe Arg Asp Arg Glu Asn Tyr | | |
| | 275 | 280 285 |
| Asp Arg Gly Tyr Ser Ser Leu Leu Lys Arg Asp Phe Gly Ala Lys Thr | | |
| | 290 | 295 300 |
| Xaa Asn Gly Gly Tyr Ser Ala Cys Lys Phe Thr Asn Gly Ser Phe Gly | | |

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305              310              315              320
Ser Asn Phe Gly Xaa Cys Trp Xaa Ser Gly Pro Val Leu Gly Leu Gly
              325              330              335

Ile Pro Thr Xaa Ala Leu Pro
              340

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<400> 1440
Ile Cys Val Ser Ala Arg Arg Ala Leu Ser Gly Leu Glu His Gly Leu
  1              5              10              15
Gly Trp Glu Arg Val Trp Glu Lys Met Gly Asn Lys Glu Pro Gly Ser
      20              25              30
His Gly His Arg Ser Asp Ala Asp Pro Ser Arg Phe Ser Pro Val Leu
      35              40              45
Pro Pro Ala Val Gln Leu Gly Val Trp Arg Glu Glu Gly Arg Gly Gly
      50              55              60
Ser Cys Pro Phe Ser Trp Gly Arg Gly Pro Val Ser Ser Thr Trp Leu
      65              70              75              80
Phe Pro Lys Gly Ser Lys Arg Glu Gly Leu Gly Glu Lys Thr Met Glu
      85              90              95
Arg Gly Pro Ala Lys Glu Asn Arg Glu Glu Val Ser Gly Leu Ile Ser
      100             105             110
Leu Leu Ser Arg Cys Ser Gly Ser Leu Ile
      115             120

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<400> 1441
Gly His Arg His Thr Pro Pro His Leu Ala Asn Phe Tyr Tyr Phe Phe
1 5 10 15

1518

Cys Arg Asp Glu Val Ser Leu Cys Pro Gly Trp Ser Gln Thr Pro Val
 20 25 30

Leu Lys Gln Ser Ser His Leu Gly Ser Leu Ser Ala Gly Ile Ile Gly
 35 40 45

Met Ser His Arg Ala Arg Pro His Val Cys Met Leu Lys Val Leu Arg
 50 55 60

Ile Pro Met Glu Asn Lys Phe Asp Phe Ala
 65 70

<210> 1442

<211> 103

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (2)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1442

Ala Xaa Xaa His Gln Pro Ser Leu Lys Gly Thr Lys Ala Gly Ala Pro
 1 5 10 15

Pro Arg Cys Gly Arg Ser Arg Thr Ser Gly Ser Pro Gly Leu Gln Glu
 20 25 30

Phe Gly Thr Arg Glu Ala Glu Ala Gly Val Gln Trp Cys Asp Leu Gly
 35 40 45

Ser Leu Gln Pro Leu Pro Pro Arg Phe Gln Gln Phe Ser Cys Leu Ser
 50 55 60

Leu Pro Ser Gly Trp Asp Asp Arg Arg Leu Pro Ser Cys Leu Thr Ser
 65 70 75 80

Phe Cys Ile Phe Ser Arg Asp Gly Val Ser Pro Cys Trp Pro Gly Trp
 85 90 95

Ser Gln Thr Pro Asp Leu Arg
 100

1519

<210> 1443
<211> 106
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (48)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (53)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (57)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (58)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (63)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (66)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (70)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (72)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (83)
<223> Xaa equals any of the naturally occurring L-amino acids

1520

<220>

<221> SITE

<222> (99)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (100)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (102)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1443

| | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | His | Ala | Ala | Cys | Ala | Ala | Ala | Met | Ser | Leu | Val | Ile | Pro | Glu |
| 1 | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Phe | Gln | His | Ile | Leu | Arg | Val | Leu | Asn | Thr | Asn | Ile | Asp | Gly | Arg |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Lys | Ile | Ala | Phe | Ala | Ile | Thr | Ala | Ile | Lys | Gly | Val | Gly | Arg | Xaa |
| | | | 35 | | | | | 40 | | | | | 45 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Ala | His | Val | Xaa | Leu | Arg | Lys | Xaa | Xaa | Ile | Asp | Leu | Thr | Xaa | Arg |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Xaa | Glu | Leu | Thr | Xaa | Asp | Xaa | Val | Glu | Arg | Val | Ile | Thr | Ile | Met |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Asn | Xaa | Arg | Gln | Tyr | Lys | Ile | Pro | Asp | Trp | Phe | Leu | Asn | Arg | Gln |
| | | | 85 | | | | | 90 | | | | | | 95 | |

| | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Asp | Xaa | Xaa | Asp | Xaa | Ser | Thr | Ser | Ser |
| | | 100 | | | | | 105 | | |

<210> 1444

<211> 14

<212> PRT

<213> Homo sapiens

<400> 1444

| | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Val | Trp | Pro | Lys | Trp | Ser | Gly | Trp | Pro | Leu | Ala | Leu | Pro |
| 1 | | | | 5 | | | | | 10 | | | | |

1521

<210> 1445
 <211> 126
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (104)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (119)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (123)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (124)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1445
 Phe Leu Arg Leu Val Leu Gly Leu Leu Ile Gly Arg Cys Leu Gln Glu
 1 5 10 15
 Met Leu Lys Leu Gly Thr Leu Pro Pro Thr Ser Lys Pro Gln Leu Leu
 20 25 30
 Cys Gln Met Val Ser Leu Lys Ile Ser Ala Cys Leu Thr Thr Lys Gly
 35 40 45
 Lys Tyr Val Val Phe Phe Phe Tyr Pro Leu Asp Phe Thr Phe Val Cys
 50 55 60
 Pro Thr Glu Ile Ile Ala Phe Ser Asp Arg Ala Glu Glu Phe Lys Lys
 65 70 75 80
 Leu Asn Cys Gln Val Ile Gly Ala Ser Val Asp Ser His Phe Cys His
 85 90 95
 Leu Ala Trp Val Asn Thr Pro Xaa Lys Gln Gly Gly Leu Gly Pro Met
 100 105 110
 Asn Ile Pro Leu Val Ser Xaa Pro Thr His Xaa Xaa Ser Gly
 115 120 125

1522

<210> 1446

<211> 97

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (92)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1446

Cys Asp Lys Glu Lys Asn Leu Leu His Val Thr Asp Thr Gly Val Gly
 1 5 10 15

Met Thr Arg Glu Glu Leu Val Lys Asn Leu Gly Thr Ile Ala Lys Ser
 20 25 30

Gly Thr Ser Glu Phe Leu Asn Lys Met Thr Glu Ala Gln Glu Asp Gly
 35 40 45

Gln Ser Thr Ser Asp Leu Ile Gly Gln Phe Gly Val Gly Phe Tyr Ser
 50 55 60

Ala Phe Leu Val Ala Asp Lys Val Ile Val Thr Ser Lys His Asn Asn
 65 70 75 80

Asp Thr Gln His Ile Trp Glu Ser Asp Ser Asn Xaa Phe Ser Val Asn
 85 90 95

Cys

<210> 1447

<211> 47

<212> PRT

<213> Homo sapiens

<400> 1447

His Ser Arg His Arg Gly Val Phe Leu Thr Pro Leu Leu Ala Met Ser
 1 5 10 15

Ser His Lys Thr Phe Arg Ile Lys Arg Phe Leu Ala Lys Lys Gln Lys
 20 25 30

Gln Asn Arg Pro Ile Pro Gln Trp Ile Arg Met Lys Thr Gly Lys
 35 40 45

1523

<210> 1448

<211> 106

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (85)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (104)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1448

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Phe | Arg | Val | Glu | Ala | Trp | Arg | Thr | Ser | Gly | Glu | Thr | Pro | Ala | Ile |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Pro | Ser | Lys | Arg | Ala | Arg | Pro | Ala | Glu | Val | Gly | Gly | Met | Gln | Leu |
| | | | 20 | | | | 25 | | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Phe | Ala | Arg | Leu | Ser | Glu | His | Ala | Thr | Ala | Pro | Thr | Arg | Gly | Ser |
| | | 35 | | | | 40 | | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Arg | Ala | Ala | Gly | Tyr | Asp | Leu | Tyr | Ser | Ala | Tyr | Asp | Tyr | Thr | Ile |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Pro | Met | Glu | Lys | Ala | Val | Val | Lys | Thr | Asp | Ile | Gln | Ile | Ala | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Ser | Gly | Cys | Xaa | Gly | Arg | Val | Ala | Pro | Arg | Ser | Gly | Leu | Ala | Ala |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | His | Phe | Ile | Asp | Val | Gly | Xaa | Val | Ser |
| | | | 100 | | | | 105 | | |

<210> 1449

<211> 60

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (41)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1524

<221> SITE

<222> (44)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1449

Thr Met Ala Val Gly Lys Asn Lys Arg Leu Thr Lys Gly Gly Lys Lys
 1 5 10 15

Gly Ala Lys Lys Lys Val Val Asp Pro Phe Phe Lys Lys Asp Trp Tyr
 20 25 30

Asp Val Lys Ala Pro Ala Met Phe Xaa Ile Arg Xaa Ile Gly Lys Thr
 35 40 45

Leu Val Thr Arg Thr Gln Gly Thr Lys Ile Ala Ser
 50 55 60

<210> 1450

<211> 45

<212> PRT

<213> Homo sapiens

<400> 1450

Asn Phe Gly Ser Leu Leu Gly Ala Cys Leu Ile Leu Gln Ile Thr Thr
 1 5 10 15

Gly Leu Phe Leu Ala Met His Tyr Ser Pro Asp Ala Ser Thr Ala Phe
 20 25 30

Ser Ser Ile Ala His Ile Thr Arg Asp Val Asn Tyr Gly
 35 40 45

<210> 1451

<211> 34

<212> PRT

<213> Homo sapiens

<400> 1451

Lys Leu Leu Asp Asp Asn Gly Asn Ile Ala Glu Glu Leu Ser Ile Leu
 1 5 10 15

Lys Trp Asn Thr Asp Ser Val Glu Glu Phe Leu Ser Glu Lys Leu Glu
 20 25 30

Arg Ile

1525

<210> 1452
<211> 61
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (6)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1452
Pro Arg Val Arg Leu Xaa Asp Glu Thr Asn Ile Cys Asn Gly Lys Pro
1 5 10 15
Val Asp Gly Leu Thr Thr Leu Arg Asn Gly Thr Leu Val Ala Phe Arg
20 25 30
Gly His Tyr Phe Trp Met Leu Ser Pro Phe Ser Pro Pro Ser Pro Ala
35 40 45
Arg Arg Ile Thr Glu Val Leu Gly Asn Pro Phe Pro His
50 55 60

<210> 1453
<211> 44
<212> PRT
<213> Homo sapiens

<400> 1453
Arg Glu Gln Lys Leu Glu Leu His Arg Gly Ala Ala Ala Leu Glu Leu
1 5 10 15
Val Asp Pro Pro Gly Cys Arg Asn Ser Ala Arg Gly Cys Ser Glu Pro
20 25 30
Arg Ser His His Cys Thr Pro Val Trp Ala Thr Glu
35 40

<210> 1454
<211> 118
<212> PRT
<213> Homo sapiens

<220>
<221> SITE

1526

<222> (76)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (84)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (98)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (99)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (106)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (111)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1454

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Arg | Val | Ala | Pro | Ser | Val | Leu | Arg | Leu | Ala | Met | Thr | Ser | Tyr | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Arg | Gln | Ser | Ser | Ala | Thr | Ser | Ser | Phe | Gly | Gly | Leu | Gly | Gly | Gly |
| | | 20 | | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Val | Arg | Ile | Gly | Pro | Gly | Val | Ala | Phe | Arg | Ala | Pro | Ser | Ile | His |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Gly | Ser | Gly | Gly | Arg | Gly | Val | Ser | Val | Ser | Ser | Ala | Arg | Phe | Val |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ser | Ser | Ser | Ser | Gly | Gly | Tyr | Gly | Gly | Gly | Xaa | Gly | Gly | Val | Leu |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Ala | Ser | Xaa | Gly | Leu | Leu | Ala | Gly | Asn | Glu | Lys | Leu | Thr | Met | Gln |
| | | | 85 | | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Xaa | Xaa | Thr | Ala | Trp | Leu | Leu | Leu | Xaa | Lys | Phe | Ala | Pro | Xaa | Gly |
| | | | 100 | | | | | 105 | | | | | 110 | | |

Ala Lys Gly Thr Lys Ser

1527

115

<210> 1455
 <211> 48
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (2)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (34)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (43)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1455
 Ala Xaa Glu Asn Ser Arg Ile Val Leu Gln Ile Asp Asn Ala Arg Leu
 1 5 10 15
 Ala Ala Asp Asp Phe Arg Thr Lys Phe Glu Thr Glu Gln Ala Leu Arg
 20 25 30
 Met Xaa Val Glu Ala Asp Ile Asn Gly Leu Xaa Arg Cys Trp Met Ser
 35 40 45

<210> 1456
 <211> 143
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (131)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE

1528

<222> (137)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1456

Gly Asp Tyr Ser His Tyr Tyr Thr Thr Ile Gln Asp Leu Arg Asp Lys
 1 5 10 15

Ile Leu Gly Ala Thr Ile Glu Asn Ser Arg Ile Val Leu Gln Ile Asp
 20 25 30

Asn Ala Arg Leu Ala Ala Asp Asp Phe Arg Thr Lys Phe Glu Thr Glu
 35 40 45

Gln Ala Leu Arg Met Ser Val Glu Ala Asp Ile Asn Gly Leu Arg Arg
 50 55 60

Val Leu Asp Glu Leu Thr Leu Ala Arg Thr Asp Leu Glu Met Gln Ile
 65 70 75 80

Glu Gly Leu Lys Glu Glu Leu Ala Tyr Leu Lys Lys Asn His Glu Glu
 85 90 95

Glu Ile Ser Thr Leu Arg Gly Gln Val Gly Gly Gln Val Ser Val Glu
 100 105 110

Val Asp Ser Ala Pro Gly Thr Asp Leu Ala Lys Ile Leu Ser Asp Met
 115 120 125

Arg Ser Xaa Tyr Glu Val Met Ala Xaa Gln Asn Arg Lys Asp Ala
 130 135 140

<210> 1457

<211> 116

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (21)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1457

Gly Cys Val Gly Val Arg Pro Ser Leu His Pro Ala Thr Ser Thr Ala
 1 5 10 15

Ser Gly Ser Ala Xaa Pro Thr Leu Ala Arg Ala Met Ala Ser Val Ser
 20 25 30

Glu Leu Ala Cys Ile Tyr Ser Ala Leu Ile Leu His Asp Asp Glu Val

1529

35 40 45
 Thr Val Thr Glu Asp Lys Ile Asn Ala Leu Ile Lys Ala Ala Gly Val
 50 55 60
 Asn Val Glu Pro Phe Trp Pro Gly Leu Phe Ala Lys Ala Leu Ala Asn
 65 70 75 80
 Val Asn Ile Gly Ser Leu Ile Cys Asn Val Gly Ala Gly Gly Pro Ala
 85 90 95
 Pro Ala Ala Gly Ala Ala Thr Ser Arg Arg Ser Cys Pro Leu His Cys
 100 105 110
 Cys Cys Ser Ser
 115

<210> 1458

<211> 115

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (47)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1458

Leu Val Pro Asn Ser Ala Arg Ala Ala Ala Ser Ala Ala Asp Ala Ala
 1 5 10 15
 Ala Met Arg Tyr Val Ala Ser Tyr Leu Leu Ala Ala Leu Gly Gly Asn
 20 25 30
 Ser Ser Pro Ser Ala Lys Gly Ile Lys Lys Ile Leu Asp Asn Xaa Gly
 35 40 45
 Ile Glu Ala Asp Asp Asp Arg Leu Asn Lys Val Ile Ser Glu Leu Asn
 50 55 60
 Gly Lys Asn Ile Glu Asp Val Ile Ala Gln Gly Ile Gly Lys Leu Ala
 65 70 75 80
 Ser Val Pro Ala Gly Gly Ala Val Ala Val Ser Ala Ala Pro Gly Ser
 85 90 95
 Ala Ala Pro Ala Ala Gly Ser Ala Pro Ala Ala Ala Glu Glu Lys Lys
 100 105 110

1530

Asp Glu Lys
115

<210> 1459
<211> 132
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (115)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (123)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (126)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (129)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1459
Ala Ser Asp Ala Leu His Ser Leu Ser Ala Pro Val Leu Arg Leu Ser
1 5 10 15
Ser Arg Ser Ala Ala Arg Pro Ala Thr Met Thr Glu Gln Ala Ile Ser
20 25 30
Phe Ala Lys Asp Phe Leu Ala Gly Gly Ile Ala Ala Ala Ile Ser Lys
35 40 45
Thr Ala Val Ala Pro Ile Glu Arg Val Lys Leu Leu Leu Gln Val Gln
50 55 60
His Ala Ser Lys Gln Ile Ala Ala Asp Lys Gln Tyr Lys Gly Ile Val
65 70 75 80
Asp Cys Ile Val Arg Ile Pro Lys Glu Gln Gly Val Leu Ser Phe Trp
85 90 95
Arg Gly Asn Leu Ala Asn Val Ile Arg Tyr Phe Pro Thr Gln Ala Leu
100 105 110

1531

Asn Phe Xaa Phe Lys Asp Lys Tyr Lys Gln Xaa Phe Leu Xaa Gly Val
115 120 125

Xaa Lys His Thr
130

<210> 1460
<211> 124
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (1)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (3)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (8)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (80)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (85)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (107)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (112)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE

1532

<222> (117)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (119)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (120)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (121)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1460

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Ser | Xaa | Lys | Thr | Gly | Phe | Xaa | Asp | Trp | Ile | Ser | Val | Ala | Tyr | Tyr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Cys | Phe | Arg | Glu | Gly | Ala | Thr | Ile | Ile | Gln | Val | Gly | Lys | Leu | Ile |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Glu | Ala | Ala | Gly | Lys | Ser | Asn | Leu | Lys | Arg | Val | Thr | Leu | Glu | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Gly | Lys | Ser | Pro | Cys | Ile | Val | Leu | Ala | Asp | Ala | Asp | Leu | Asp | Asn |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Val | Glu | Phe | Ala | His | His | Gly | Val | Phe | Tyr | His | Gln | Gly | Gln | Xaa |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Ile | Ala | Ala | Xaa | Arg | Ile | Phe | Val | Glu | Glu | Ser | Ile | Tyr | Asp | Glu |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Val | Arg | Arg | Ser | Val | Glu | Arg | Val | Lys | Xaa | Ile | Ser | Leu | Gly | Xaa |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Leu | Thr | Pro | Xaa | Val | Xaa | Xaa | Xaa | Pro | Ser | Asp |
| | | 115 | | | | | 120 | | | | |

<210> 1461

<211> 179

<212> PRT

<213> Homo sapiens

<220>

1533

<221> SITE
<222> (102)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (125)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (142)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (145)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (157)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (163)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (173)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (174)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (176)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1461
Trp Ile Pro Arg Ala Ala Gly Ile Arg His Glu Val Val Pro Leu Ala
1 5 10 15
Gly Thr Asn Gly Glu Thr Thr Thr Gln Gly Leu Asp Gly Leu Ser Glu
20 25 30

1534

[illegible]

<210> 1462

<211> 31

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (13)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1462

Ala Asn Ser Leu Ala Cys Gln Gly Lys Tyr Thr Pro Xaa Gly Gln Ala
1 5 10 15

Gly Ala Ala Ala Ser Glu Ser Leu Phe Val Ser Asn His Ala Tyr
20 25 30

1535

<210> 1463
<211> 71
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (65)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (69)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1463
Asp Asp Cys Glu Phe Lys Ala Glu Gly Asn Ser Lys Phe Thr Tyr Thr
1 5 10 15
Val Leu Glu Asp Gly Cys Thr Lys His Thr Gly Glu Trp Ser Lys Thr
20 25 30
Val Phe Glu Tyr Arg Thr Arg Lys Ala Val Arg Leu Pro Ile Val Asp
35 40 45
Ile Ala Pro Tyr Asp Ile Gly Gly Pro Asp Gln Glu Phe Gly Val Asp
50 55 60
Xaa Gly Pro Val Xaa Phe Leu
65 70

<210> 1464
<211> 77
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (1)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (6)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (10)

1536

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1464

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Gly | Thr | Arg | His | Xaa | Leu | Arg | Thr | Xaa | Asn | Gln | Ser | Ser | Asp | Glu |
| 1 | | | | | 5 | | | | 10 | | | | | 15 | |
| Leu | Gln | Leu | Ser | Met | Gly | Asn | Ala | Met | Phe | Val | Lys | Glu | Gln | Leu | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Leu | Asp | Arg | Phe | Thr | Glu | Asp | Ala | Lys | Arg | Leu | Tyr | Gly | Ser | Glu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ala | Phe | Ala | Thr | Asp | Phe | Gln | Asp | Ser | Ala | Ala | Ala | Lys | Lys | Leu | Ile |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Asn | Asp | Tyr | Val | Lys | Asn | Gly | Thr | Arg | Gly | Thr | Ile | Thr | | | |
| 65 | | | | | 70 | | | | | 75 | | | | | |

<210> 1465

<211> 105

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (83)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (98)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (103)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (104)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1465

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Lys | Gly | Arg | Pro | Gly | Phe | Pro | Gly | Ser | Lys | Gly | Glu | Ala | Gly | Phe |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |
| Phe | Gly | Ile | Pro | Gly | Leu | Lys | Gly | Leu | Ala | Gly | Glu | Pro | Gly | Phe | Lys |
| | | 20 | | | | | 25 | | | | | 30 | | | |

1537

Gly Ser Arg Gly Asp Pro Gly Pro Pro Gly Pro Pro Pro Val Ile Leu
 35 40 45
 Pro Gly Met Lys Asp Ile Lys Gly Glu Lys Gly Asp Glu Gly Pro Met
 50 55 60
 Gly Leu Lys Gly Tyr Leu Gly Ala Lys Gly Ile Gln Gly Met Pro Gly
 65 70 75 80
 Ile Pro Xaa Leu Ser Gly Ile Pro Gly Leu Pro Gly Arg Pro Gly His
 85 90 95
 Ile Xaa Gly Ile Lys Gly Xaa Xaa Gly
 100 105

<210> 1466

<211> 36

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (19)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1466

Arg Pro Gly Leu Cys Ala Lys Thr Val Phe Lys Ala Leu Gln Ala Pro
 1 5 10 15
 Ala Leu Xaa Glu Glu His Gly Glu Gly Trp Arg Leu His Pro Trp Gly
 20 25 30
 Val Trp Glu Thr
 35

<210> 1467

<211> 82

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (76)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1538

<221> SITE

<222> (79)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (80)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (82)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1467

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Val | Pro | Ala | Met | Ala | Ala | Lys | Gly | Gly | Thr | Val | Lys | Ala | Ala | Ser |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Phe | Asn | Ala | Thr | Glu | Asp | Ala | Gln | Thr | Leu | Arg | Lys | Ala | Met | Lys |
| | | 20 | | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Leu | Gly | Thr | Asp | Glu | Asp | Ala | Ile | Ile | Ser | Val | Leu | Ala | Tyr | Arg |
| | 35 | | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Thr | Ala | Gln | Arg | Gln | Glu | Ile | Arg | Thr | Ala | Leu | Gln | Glu | His | His |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ala | Gly | Asp | Leu | Val | Leu | Arg | Asn | Gly | Pro | Xaa | Phe | Val | Xaa | Xaa |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |

Trp Xaa

<210> 1468

<211> 83

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (15)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (24)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1539

<221> SITE
 <222> (35)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (61)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (66)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (79)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (82)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (83)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <400> 1468
 Gly Trp His Leu Gly Pro Pro Gly Ser Trp Cys Trp Trp Ser Xaa Cys
 1 5 10 15
 Ile Thr Gly Pro Asn Thr Ser Xaa Cys Cys Trp Thr His Phe Glu Lys
 20 25 30
 Pro Arg Xaa Ile Asp Asn Val Leu Val Ile Phe Ser His Asp Phe Trp
 35 40 45
 Ser Thr Glu Ile Asn Gln Leu Ile Ala Gly Val Asn Xaa Cys Pro Val
 50 55 60
 Leu Xaa Val Phe Phe Pro Phe Ser Ile Gln Leu Phe Pro Asn Xaa Phe
 65 70 75 80

 Pro Xaa Xaa

<210> 1469

1540

<211> 26

<212> PRT

<213> Homo sapiens

<400> 1469

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Lys | Asp | Glu | Tyr | Ala | Cys | Arg | Val | Asn | His | Val | Thr | Leu | Ser | Gln |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |

| | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Lys | Ile | Val | Lys | Trp | Asp | Arg | Asp | Met |
| | | 20 | | | | 25 | | | |

<210> 1470

<211> 168

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (136)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (139)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (141)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (143)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (146)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (148)

1541

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (152)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (153)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (158)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1470

Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Gly Gly Arg Ser
1 5 10 15

Xaa Gly Ser Lys Leu Thr Tyr Ala Cys Met Arg Arg His Ser Ser Ser
20 25 30

Ile Val Ser Pro Lys Phe Asn Ser Leu Ala Val Val Leu Gln Arg Arg
35 40 45

Asp Trp Glu Asn Pro Gly Val Thr Gln Leu Asn Arg Leu Ala Ala His
50 55 60

Pro Pro Phe Ala Ser Trp Arg Asn Ser Glu Glu Ala Arg Thr Asp Arg
65 70 75 80

Pro Ser Gln Gln Leu Arg Ser Leu Asn Gly Lys Trp Asp Ala Pro Cys
85 90 95

Ser Gly Ala Leu Ser Ala Ala Gly Val Val Val Thr Arg Ser Val Thr
100 105 110

Ala Thr Leu Ala Ser Ala Leu Arg Pro Val Leu Ser Phe Leu Pro Phe
115 120 125

Leu Ser Arg His Val Arg Arg Xaa Ser Pro Xaa Ser Xaa Lys Xaa Gly
130 135 140

Ala Xaa Phe Xaa Val Pro Ile Xaa Xaa Leu Arg Asp Leu Xaa Pro Lys
145 150 155 160

Asn Leu Ile Arg Val Met Val Thr
165

1542

<210> 1471

<211> 131

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (22)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (88)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (111)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (116)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (119)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1471

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | His | Leu | Asn | Ser | Ile | His | Trp | Pro | Ser | Phe | Tyr | Asn | Val | Val | Thr |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Lys | Thr | Leu | Ala | Xaa | Pro | Asn | Leu | Ile | Ala | Leu | Gln | His | Ile | Pro |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Ser | Pro | Ala | Gly | Ser | Asn | Ser | Glu | Glu | Ala | Arg | Thr | Asp | Arg | Pro |
| | | | 35 | | | | | 40 | | | | | 45 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Gln | Gln | Leu | Arg | Ser | Leu | Asn | Gly | Glu | Trp | Asp | Ala | Pro | Cys | Ser |
| | | | 50 | | | | 55 | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Ala | Leu | Ser | Ala | Ala | Gly | Val | Val | Val | Thr | Arg | Ser | Val | Thr | Ala |
| | 65 | | | | | 70 | | | | | 75 | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Leu | Ala | Ser | Ala | Leu | Ala | Xaa | Ala | Pro | Phe | Ala | Phe | Phe | Pro | Ser |
| | | | | | | 85 | | | 90 | | | | | 95 | |

1543

Phe Leu Ala Thr Phe Ala Gly Phe Pro Arg Gln Ala Leu Asn Xaa Gly
100 105 110

Leu Pro Leu Xaa Phe Arg Xaa Ser Ala Val Arg His Leu Asp Pro Lys
115 120 125

Lys Leu Asp
130

<210> 1472
<211> 179
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (5)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (24)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (25)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (35)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (40)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (51)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (71)
<223> Xaa equals any of the naturally occurring L-amino acids

1544

<220>

<221> SITE

<222> (74)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (82)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (102)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (105)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (109)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (110)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (114)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (117)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (118)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (119)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1545

<221> SITE
 <222> (125)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (139)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (150)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (161)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (167)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (179)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <400> 1472
 Lys Lys Lys Lys Xaa Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys
 1 5 10 15

 Lys Lys Lys Lys Gly Gly Arg Xaa Xaa Gly Ser Lys Leu Thr Tyr Ala
 20 25 30

 Cys Met Xaa Arg His Ser Ser Xaa Ile Gly Ser Pro Lys Phe Asn Ser
 35 40 45

 Leu Ala Xaa Val Leu Gln Arg Arg Asp Trp Glu Asn Pro Gly Val Thr
 50 55 60

 Gln Leu Asn Arg Leu Ala Xaa His Pro Xaa Phe Ala Ser Trp Arg Asn
 65 70 75 80

 Ser Xaa Lys Ala Arg Thr Asp Arg Pro Ser Gln Gln Leu Arg Ser Leu
 85 90 95

 Asn Gly Lys Trp Asp Xaa Pro Cys Xaa Gly Ala Leu Xaa Xaa Ala Gly
 100 105 110

1546

Val Xaa Val Thr Xaa Xaa Xaa Thr Ala Thr Leu Ala Xaa Ala Leu Ala
 115 120 125

Pro Ala Pro Phe Ala Phe Phe Pro Ser Phe Xaa Ala Thr Phe Ala Gly
 130 135 140

Phe Pro Arg Gln Ala Xaa Asn Arg Gly Leu Pro Leu Gly Phe Arg Leu
 145 150 155 160

Xaa Ala Leu Arg Asp Leu Xaa Pro Gln Lys Asn Leu Ile Arg Gly Asp
 165 170 175

Gly Ser Xaa

<210> 1473

<211> 58

<212> PRT

<213> Homo sapiens

<400> 1473

Ile Ala Ser Gly Arg Ser Arg Gly Ser Lys Leu Thr Tyr Ala Cys Met
 1 5 10 15

Arg Arg His Ser Ser Ser Ile Val Ser Pro Lys Phe Asn Ser Leu Ala
 20 25 30

Val Val Leu Gln Arg Arg Asp Trp Glu Asn Pro Gly Val Thr Gln Leu
 35 40 45

Asn Arg Leu Ala Ala His Pro Pro Phe Ala
 50 55

<210> 1474

<211> 70

<212> PRT

<213> Homo sapiens

<400> 1474

Ile Ala Ser Gly Arg Ser Arg Gly Ser Lys Leu Thr Tyr Ala Cys Met
 1 5 10 15

Arg Arg His Ser Ser Ser Ile Val Ser Pro Lys Phe Asn Ser Leu Ala
 20 25 30

Val Val Leu Gln Arg Arg Asp Trp Glu Asn Pro Gly Val Thr Gln Leu
 35 40 45

1547

Asn Arg Leu Ala Ala His Pro Pro Phe Ala Ser Trp Arg Asn Ser Glu
50 55 60

Glu Ala Arg Thr Asp Arg
65 70

<210> 1475

<211> 62

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (5)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (8)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (9)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (48)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (59)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (60)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1475

Leu Pro Xaa Ala Xaa Tyr Thr Xaa Xaa Gly Thr Thr Pro His Tyr Arg

1548

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
| 1 | | | | | 5 | | | | | | 10 | | | | | 15 |
| Glu | Ser | Trp | Tyr | Ala | Cys | Arg | Tyr | Arg | Ser | Gly | Ile | Pro | Gly | Ser | Thr | |
| | | | | 20 | | | | 25 | | | | | 30 | | | |
| His | Ala | Ser | Glu | Lys | Lys | Lys | Lys | Lys | Lys | Lys | Lys | Lys | Lys | Arg | Xaa | |
| | | | 35 | | | | 40 | | | | | 45 | | | | |
| Asp | Asp | Leu | Glu | Asp | Pro | Lys | Leu | Thr | Tyr | Xaa | Xaa | Met | Gln | | | |
| | | 50 | | | | 55 | | | | | | 60 | | | | |

<210> 1476

<211> 80

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (5)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (8)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (29)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (40)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (44)

1549

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (55)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (73)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1476

Ile Arg Xaa Xaa Xaa Leu Arg Xaa Asp Thr Thr His Tyr Arg Glu Ser
1 5 10 15

Trp Tyr Ala Cys Arg Tyr Arg Ser Gly Ile Pro Gly Xaa Thr His Ala
20 25 30

Ser Val Glu Ile Cys Pro Pro Xaa Ser Arg Pro Xaa Ser Ser Gln Ser
35 40 45

Asn Gly Glu Gly Tyr Ser Xaa Cys Arg Arg Pro Gln Ala Leu Glu Ala
50 55 60

Ala Thr Tyr Leu Asn Pro Val Pro Xaa Arg Ile Leu Leu Lys Pro Phe
65 70 75 80

<210> 1477

<211> 52

<212> PRT

<213> Homo sapiens

<400> 1477

Arg Gln Val Pro His Glu Arg Ala Val Arg Asp Gly Arg Gly Gly Gly
1 5 10 15

Arg Ser Arg Gly Ser Lys Leu Thr Tyr Ala Cys Met Arg Arg His Ser
20 25 30

Ser Ser Ile Val Ser Pro Lys Phe Asn Ser Leu Ala Val Val Leu Gln
35 40 45

Arg Arg Asp Trp
50

1550

<210> 1478

<211> 154

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (140)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1478

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Ala | Ser | Gly | Arg | Ser | Arg | Gly | Ser | Lys | Leu | Thr | Tyr | Ala | Cys | Met |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Arg | His | Ser | Ser | Ser | Ile | Val | Ser | Pro | Lys | Phe | Asn | Ser | Leu | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Val | Leu | Gln | Arg | Arg | Asp | Trp | Glu | Asn | Pro | Gly | Val | Thr | Gln | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Arg | Leu | Ala | Ala | His | Pro | Pro | Phe | Ala | Ser | Trp | Arg | Asn | Ser | Glu |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Ala | Arg | Thr | Asp | Arg | Pro | Ser | Gln | Gln | Leu | Arg | Ser | Leu | Asn | Gly |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Trp | Asp | Ala | Pro | Cys | Ser | Gly | Ala | Leu | Ser | Ala | Ala | Gly | Val | Val |
| | | | 85 | | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Thr | Arg | Ser | Val | Thr | Ala | Thr | Leu | Ala | Ser | Ala | Leu | Ala | Pro | Ala |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Phe | Ala | Phe | Phe | Pro | Ser | Phe | Leu | Ala | Thr | Phe | Ala | Gly | Phe | Pro |
| | | 115 | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Gln | Ala | Leu | Asn | Arg | Gly | Leu | Pro | Leu | Gly | Xaa | Arg | Phe | Lys | Cys |
| | 130 | | | | | 135 | | | | | 140 | | | | |

| | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Thr | Asp | Leu | Asp | Pro | Lys | Lys | Leu | Asp |
| 145 | | | | | 150 | | | | |

<210> 1479

<211> 130

<212> PRT

<213> Homo sapiens

<220>

1551

<221> SITE

<222> (122)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1479

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Ala | Gly | Gly | Arg | Ser | Arg | Gly | Ser | Lys | Leu | Thr | Tyr | Ala | Cys | Met |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Arg | His | Ser | Ser | Ser | Ile | Val | Ser | Pro | Lys | Phe | Asn | Ser | Leu | Ala |
| | | 20 | | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Val | Leu | Gln | Arg | Arg | Asp | Trp | Glu | Asn | Pro | Gly | Val | Thr | Gln | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Arg | Leu | Ala | Ala | His | Pro | Pro | Phe | Ala | Ser | Trp | Arg | Asn | Ser | Glu |
| | | 50 | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Ala | Arg | Thr | Asp | Arg | Pro | Ser | Gln | Gln | Leu | Arg | Ser | Leu | Asn | Gly |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Trp | Asp | Ala | Pro | Cys | Ser | Gly | Ala | Leu | Ser | Ala | Ala | Gly | Val | Val |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Thr | Arg | Ser | Val | Thr | Ala | Thr | Leu | Ala | Lys | Arg | Pro | Lys | Arg | Pro |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Leu | Ser | Leu | Ser | Ser | Phe | Leu | Phe | Xaa | Pro | Arg | Ser | Ala | Gly | Phe |
| | | 115 | | | | | 120 | | | | | 125 | | | |

| | |
|-----|-----|
| Ser | Pro |
| | 130 |

<210> 1480

<211> 131

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (103)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (112)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

1552

<222> (127)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (129)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1480

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Ala | Ser | Gly | Arg | Ser | Arg | Gly | Ser | Lys | Leu | Thr | Tyr | Ala | Cys | Met |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Arg | His | Ser | Ser | Ser | Ile | Val | Ser | Pro | Lys | Phe | Asn | Ser | Leu | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Val | Leu | Gln | Arg | Arg | Asp | Trp | Glu | Asn | Pro | Gly | Val | Thr | Gln | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Arg | Leu | Ala | Ala | His | Pro | Pro | Phe | Ala | Ser | Trp | Arg | Asn | Ser | Glu |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Ala | Arg | Thr | Asp | Arg | Pro | Ser | Gln | Gln | Leu | Arg | Ser | Leu | Asn | Gly |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Trp | Asp | Ala | Pro | Cys | Ser | Gly | Ala | Leu | Ser | Ala | Ala | Gly | Val | Val |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Thr | Arg | Ser | Val | Thr | Xaa | Thr | Leu | Ala | Ser | Ala | Leu | Ala | Pro | Xaa |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Phe | Ala | Phe | Phe | Leu | Leu | Ser | Arg | His | Gly | Arg | Pro | Ala | Xaa | Pro |
| | | 115 | | | | | 120 | | | | | 125 | | | |

| | | |
|-----|-----|-----|
| Xaa | Lys | Leu |
| | 130 | |

<210> 1481

<211> 112

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (88)

1553

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1481

Xaa Ser Ser Arg Ser Arg Ala Ala Arg Ser Arg Gly Ser Lys Leu Thr
1 5 10 15

Tyr Ala Cys Met Arg Arg His Ser Ser Ser Ile Val Ser Pro Lys Phe
20 25 30

Asn Ser Leu Ala Val Val Leu Gln Arg Arg Asp Trp Glu Asn Pro Gly
35 40 45

Val Thr Gln Leu Asn Arg Leu Ala Ala His Pro Pro Phe Ala Ser Trp
50 55 60

His Asn Ser Glu Glu Ala Arg Thr Asp Arg Pro Ser Gln Gln Leu Arg
65 70 75 80

Ser Leu Asn Gly Glu Trp Asp Xaa Pro Cys Ser Gly Ala Leu Ser Ala
85 90 95

Ala Gly Val Val Val Thr Arg Ser Val Thr Ala Thr Leu Ala Ala Pro
100 105 110

<210> 1482

<211> 53

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (26)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (50)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1482

Glu Asn Val Lys Ala Lys Ile Gln Asp Lys Glu Gly Ile Pro Pro Glu

1554

1 5 10 15
 Xaa Ser Arg Glu Leu Asn Leu Cys Leu Xaa Lys Gln Leu Gly Arg Met
 20 25 30
 Gly Arg Tyr Phe Val Leu Asn Leu Gln Tyr Phe Lys Arg Gly Ser Tyr
 35 40 45
 Phe Xaa Ile Leu Cys
 50

<210> 1483
 <211> 61
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (56)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (59)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1483
 Ala Asn Met Gln Ile Phe Val Lys Thr Leu Thr Gly Lys Thr Ile Thr
 1 5 10 15
 Leu Glu Val Glu Pro Ser Asp Thr Ile Glu Asn Val Lys Ala Lys Ile
 20 25 30
 Gln Asp Lys Glu Gly Ile Pro Pro Asp Gln Gln Arg Leu Ile Phe Ala
 35 40 45
 Gly Lys Gln Leu Glu Gly Trp Xaa Gln Leu Xaa Gln Thr
 50 55 60

<210> 1484
 <211> 27
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (6)

1555

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (13)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (20)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (22)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (23)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1484

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Glu | Gly | Pro | Thr | Xaa | Pro | Leu | Pro | Ser | Glu | Thr | Xaa | Gly | Asp | Val |
| 1 | | | | | 5 | | | | 10 | | | | | 15 | |

| | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Pro | Leu | Xaa | Cys | Xaa | Xaa | Gly | Leu | Asn | Met |
| | | | | 20 | | | | | 25 | |

<210> 1485

<211> 45

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (12)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (24)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (30)

<223> Xaa equals any of the naturally occurring L-amino acids

1556

<220>

<221> SITE

<222> (34)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1485

Phe Leu Ala Ala Gly Asn Pro Leu Arg Trp Pro Xaa Ile Leu Thr Ser
 1 5 10 15

Arg Trp Lys Ser Asp Ile Tyr Xaa Arg Lys Ser Asp Gly Xaa Tyr Ile
 20 25 30

Ile Xaa Leu Lys Arg Thr Trp Glu Lys Leu Leu Leu Gly
 35 40 45

<210> 1486

<211> 140

<212> PRT

<213> Homo sapiens

<400> 1486

Pro Arg Val Arg Arg Ala Glu Trp Leu Cys Gly Arg Val Ser Glu Thr
 1 5 10 15

Gly Ser Ala Cys Ser Met Ala Asp Gln Leu Thr Glu Glu Gln Ile Ala
 20 25 30

Glu Phe Lys Glu Ala Phe Ser Leu Phe Asp Lys Asp Gly Asp Gly Thr
 35 40 45

Ile Thr Thr Lys Glu Leu Gly Thr Val Met Arg Ser Leu Gly Gln Asn
 50 55 60

Pro Thr Glu Ala Glu Leu Gln Asp Met Ile Asn Glu Val Asp Ala Asp
 65 70 75 80

Gly Asn Gly Thr Ile Asp Phe Pro Glu Phe Leu Thr Met Met Ala Arg
 85 90 95

Lys Met Lys Asp Thr Asp Ser Glu Glu Glu Ile Arg Glu Ala Phe Arg
 100 105 110

Val Phe Asp Lys Asp Gly Asn Gly Tyr Ile Ser Ala Ala Glu Leu Arg
 115 120 125

His Val Met Thr Asn Leu Gly Arg Glu Val Asn Arg
 130 135 140

1557

<210> 1487
<211> 36
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (1)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (8)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (13)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (16)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (19)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (35)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1487
Xaa Leu Gly Arg Asn Trp Ala Xaa Phe Thr Gly Lys Xaa Val Gly Xaa
1 5 10 15

Ala Ser Xaa Asn Val Tyr Val His Ile Pro His Leu Arg Asn Ser His
20 25 30

Glu Lys Xaa Ser
35

<210> 1488
<211> 34
<212> PRT

1558

<213> Homo sapiens

<400> 1488

Ser Gly Pro Leu Trp Ile Leu Gly Asp Val Phe Ile Gly Arg Tyr Tyr
1 5 10 15

Thr Val Phe Asp Arg Asp Asn Asn Arg Val Gly Phe Ala Glu Ala Ala
20 25 30

Arg Leu

<210> 1489

<211> 160

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (5)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (8)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (160)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1489

Pro Thr Asn Xaa Xaa Lys Ser Xaa Glu Leu His Arg Gly Gly Gly Arg
1 5 10 15

Ser Arg Thr Ser Gly Ser Pro Gly Leu Gln Glu Phe Gly Thr Ser Thr
20 25 30

Gln Arg Pro Val Asp Ile Val Phe Leu Leu Asp Gly Ser Glu Arg Leu
35 40 45

Gly Glu Gln Asn Phe His Lys Ala Arg Arg Phe Val Glu Gln Val Ala
50 55 60

1559

Arg Arg Leu Thr Leu Ala Arg Arg Asp Asp Asp Pro Leu Asn Ala Arg
65 70 75 80

Val Ala Leu Leu Gln Phe Gly Gly Pro Gly Glu Gln Gln Val Ala Phe
85 90 95

Pro Leu Ser His Asn Leu Thr Ala Ile His Glu Ala Leu Glu Thr Thr
100 105 110

Gln Tyr Leu Asn Ser Phe Ser His Val Gly Ala Gly Val Val His Ala
115 120 125

Ile Asn Ala Ile Val Arg Ser Pro Arg Gly Gly Ala Arg Arg His Ala
130 135 140

Glu Leu Pro Ser Trp Ser Ser Arg Thr Ala Ser Arg Ala Thr Thr Xaa
145 150 155 160

<210> 1490

<211> 105

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (27)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (40)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (42)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (49)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

1560

<222> (58)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (59)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (62)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (65)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (82)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (86)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (99)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (101)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1490
Ala Gln Met Gly Met Leu Lys Gly Pro Leu Leu Asn Lys Phe Leu Thr
1 5 10 15
Thr Ala Lys Asp Lys Asn Arg Trp Glu Asp Xaa Gly Lys Gln Leu Tyr
20 25 30
Asn Val Glu Ala Thr Ser Tyr Xaa Leu Xaa Ala Leu Leu Gln Leu Lys
35 40 45
Xaa Phe Asp Phe Val Pro Pro Val Val Xaa Xaa Leu Asn Xaa Gln Arg
50 55 60

1561

Xaa Tyr Gly Gly Gly Tyr Gly Ser Thr Gln Ala Thr Phe Met Val Phe
65 70 75 80

Gln Xaa Leu Ala Gln Xaa Gln Lys Asp Gly Pro Asp His Gln Ala Leu
85 90 95

Asn Leu Xaa Val Xaa Leu Gln Met Leu
100 105

<210> 1491

<211> 125

<212> PRT

<213> Homo sapiens

<400> 1491

Arg Asn Thr Leu Ile Ile Tyr Leu Asp Lys Val Ser His Ser Glu Asp
1 5 10 15

Asp Cys Leu Ala Phe Lys Val His Gln Tyr Phe Asn Val Glu Leu Ile
20 25 30

Gln Pro Gly Ala Val Lys Val Tyr Ala Tyr Tyr Asn Leu Glu Glu Ser
35 40 45

Cys Thr Arg Phe Tyr His Pro Glu Lys Glu Asp Gly Lys Leu Asn Lys
50 55 60

Leu Cys Arg Asp Glu Leu Cys Arg Cys Ala Glu Glu Asn Cys Phe Ile
65 70 75 80

Gln Lys Ser Asp Asp Lys Val Thr Leu Glu Glu Arg Leu Asp Lys Ala
85 90 95

Cys Glu Pro Gly Val Asp Tyr Val Tyr Lys Thr Arg Leu Ala Arg Phe
100 105 110

Lys Leu Ser Asn Asp Phe Asp Arg Val His His Gly His
115 120 125

<210> 1492

<211> 68

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (62)

1562

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1492

Arg Pro Thr Arg Pro Ala Leu Ser Ile Ile Ala Leu Glu Ile Gln Ala
1 5 10 15

Gln Lys Cys Val Glu Leu Thr Glu Gly Ile Glu Cys Leu Gln Thr His
20 25 30

Ser Lys Ile Asn Gly Arg Asp Leu Thr Phe Trp Gln Glu Leu Val Ser
35 40 45

Lys Cys Leu Thr Glu Tyr Ser Ser Lys Gln Ser Gly Ser Xaa Pro Asn
50 55 60

Val Pro Glu Val
65

<210> 1493

<211> 74

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (14)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (29)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (52)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (55)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1563

<221> SITE

<222> (62)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (63)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (74)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1493

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Glu | Ile | Gln | Lys | His | Asn | His | Ser | Lys | Ser | Thr | Trp | Xaa | Asp | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Thr | Thr | Arg | Cys | Thr | Asn | Leu | Thr | Lys | Phe | Leu | Xaa | Glu | Ala | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Val | Gly | Glu | Glu | Val | Leu | Arg | Gly | Thr | Ser | Leu | Glu | Val | Thr | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Glu | Glu | Xaa | Leu | Arg | Xaa | Val | Arg | Gly | Thr | Phe | Thr | Xaa | Xaa | Pro |
| | 50 | | | | | 55 | | | | | | 60 | | | |

| | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Gly | Lys | Leu | Phe | Pro | Lys | Thr | Phe | Xaa |
| 65 | | | | | | 70 | | | |

<210> 1494

<211> 54

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (46)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (49)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1494

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Ala | Thr | Ser | Pro | Ile | Ile | Glu | Glu | Leu | Ile | Thr | Phe | His | Asp | His |
| 1 | | | | | 5 | | | | | 10 | | | | 15 | |

1564

Ala Leu Ile Ile Ile Phe Leu Ile Cys Phe Leu Val Leu Tyr Ala Leu
20 25 30

Phe Leu Thr Leu Thr Thr Lys Leu Thr Asn Thr Asn Ile Xaa Asp Ala
35 40 45

Xaa Glu Ile Glu Thr Val
50

<210> 1495
<211> 38
<212> PRT
<213> Homo sapiens

<400> 1495
Phe Phe Gly His Pro Glu Val Tyr Ile Leu Ile Leu Pro Gly Phe Gly
1 5 10 15

Ile Ile Ser His Ile Val Thr Tyr Tyr Ser Gly Lys Lys Glu Pro Phe
20 25 30

Gly Tyr Ile Gly Met Val
35

<210> 1496
<211> 46
<212> PRT
<213> Homo sapiens

<400> 1496
Ala Phe Tyr His Ser Ser Leu Ala Pro Thr Pro Gln Leu Gly Gly His
1 5 10 15

Trp Pro Pro Thr Gly Ile Thr Pro Leu Asn Pro Leu Glu Val Pro Leu
20 25 30

Leu Asn Thr Ser Val Leu Leu Ala Ser Gly Val Ser Ile Thr
35 40 45

<210> 1497
<211> 60
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<213> Homo sapiens

<400> 1497

1565

Ala Gln Val Gly Leu Gln Asp Ala Thr Ser Pro Ile Ile Glu Glu Leu
 1 5 10 15

Ile Thr Phe His Asp His Ala Leu Ile Ile Ile Phe Leu Ile Cys Phe
 20 25 30

Leu Val Leu Tyr Ala Leu Phe Leu Thr Leu Thr Thr Lys Leu Thr Asn
 35 40 45

Thr Asn Ile Ser Asp Ala Gln Glu Ile Glu Thr Val
 50 55 60

<210> 1498

<211> 45

<212> PRT

<213> Homo sapiens

<400> 1498

Thr Tyr Glu Tyr Thr Asp Tyr Gly Gly Leu Ile Phe Asn Ser Tyr Ile
 1 5 10 15

Leu Pro Pro Leu Phe Leu Glu Pro Gly Asp Leu Arg Leu Leu Asp Gly
 20 25 30

Asp Asn Arg Val Val Leu Pro Ile Glu Ala Pro Phe Val
 35 40 45

<210> 1499

<211> 69

<212> PRT

<213> Homo sapiens

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<222> (63)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1499

His Arg Leu Asp Phe Leu Gln Leu Met Ile Asp Ser Gln Asn Ser Lys
 1 5 10 15

Glu Thr Glu Ser His Lys Ala Leu Ser Asp Leu Glu Leu Ala Ala Gln
 20 25 30

Ser Ile Ile Phe Ile Phe Ala Gly Tyr Glu Thr Thr Ser Ser Val Leu
 35 40 45

1566

Ser Phe Thr Leu Tyr Glu Leu Ala Thr His Pro Asp Val Gln Xaa Lys
50 55 60

Leu Gln Lys Gly Asp
65

<210> 1500

<211> 35

<212> PRT

<213> Homo sapiens

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<222> (31)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1500

Arg Leu Thr Ser Thr Ala Cys Ala Glu Ser Trp Asp Glu Leu Thr Leu
1 5 10 15

Ala Arg Xaa Asp Leu Glu Xaa Gln Ile Glu Gly Leu Asn Glu Xaa Ala
20 25 30

Ser Leu Thr
35

<210> 1501

<211> 126

<212> PRT

<213> Homo sapiens

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1567

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<400> 1501

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Xaa | Ala | Pro | Ser | Arg | Ile | Ser | Ala | Trp | Xaa | Gly | Pro | Pro | Ala | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Pro | Ala | Ser | Thr | Met | Ser | Ile | Lys | Val | Thr | Gln | Lys | Ser | Tyr | Lys |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Ser | Thr | Ser | Ser | Pro | Arg | Ala | Phe | Ser | Ser | Arg | Ser | Tyr | Thr | Asn |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Pro | Gly | Ser | Arg | Ile | Asn | Xaa | Ser | Xaa | Phe | Ser | Arg | Ile | Gly | Ser |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Asn | Xaa | Xaa | Ser | Gly | Leu | Gly | Gly | Gly | Tyr | Xaa | Gly | Ala | Ser | Xaa |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Xaa | Gly | Ile | Thr | Ala | Val | Thr | Val | Asn | Gln | Ser | Leu | Leu | Xaa | Pro |
| | | | 85 | | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Xaa | Leu | Glu | Val | Asp | Pro | Asn | Ile | Gln | Ala | Val | Arg | Thr | Gln | Glu |
| | | 100 | | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Glu | Gln | Ile | Xaa | Thr | Leu | Asn | Asn | Lys | Phe | Ala | Ser | Ser |
| | 115 | | | | | | 120 | | | | | 125 | |

<210> 1502

<211> 84

<212> PRT

<213> Homo sapiens

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1570

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<223> Xaa equals any of the naturally occurring L-amino acids

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<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1502

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Arg | Asn | Ser | Xaa | Gly | Ser | Arg | Thr | Xaa | Xaa | Ser | Arg | Xaa | Xaa | Cys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Xaa | Val | Ala | Met | Phe | Ser | Trp | Asp | Pro | Xaa | Leu | Val | Xaa | Gly | Gly |
| | | | 20 | | | | | 25 | | | | | | 30 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Ala | Ser | Lys | Met | Ala | Val | Ala | His | Ala | Leu | Xaa | Glu | Lys | Ser | Xaa |
| | | | 35 | | | | | 40 | | | | | 45 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Met | Asp | Trp | Cys | Gly | Asn | Asn | Gly | His | Thr | Gly | Leu | Leu | Xaa | Arg |
| | 50 | | | | | | 55 | | | | | 60 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Leu | Xaa | Val | His | Ser | Ser | Xaa | Pro | Trp | Ile | Xaa | Lys | Leu | Trp | Gly |
| 65 | | | | | | 70 | | | | 75 | | | | | 80 |

Xaa Ser His His

<210> 1503

<211> 70

<212> PRT

<213> Homo sapiens

<220>

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<220>

<221> SITE

1571

<222> (70)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1503

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Gly | Val | Leu | Gly | Leu | Asp | Leu | Trp | Gln | Val | Lys | Ser | Gly | Thr | Ile |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Asp | Asn | Phe | Leu | Ile | Thr | Asn | Asp | Glu | Ala | Tyr | Ala | Glu | Glu | Phe |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Asn | Glu | Thr | Trp | Gly | Val | Thr | Lys | Ala | Ala | Glu | Lys | Gln | Met | Lys |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Lys | Gln | Asp | Glu | Glu | Gln | Arg | Leu | Lys | Glu | Glu | Glu | Glu | Asp | Lys |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | |
|-----|-----|-----|-----|-----|-----|
| Lys | Arg | Lys | Glu | Xaa | Xaa |
| 65 | | | | 70 | |

<210> 1504

<211> 42

<212> PRT

<213> Homo sapiens

<220>

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<223> Xaa equals any of the naturally occurring L-amino acids

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<222> (41)

<223> Xaa equals any of the naturally occurring L-amino acids

1572

<400> 1504

Asn Thr Leu Xaa Tyr Xaa Met Lys Ala Thr Xaa Ile Leu Leu Leu Xaa
1 5 10 15

Ala Gln Leu Ser Trp Ala Gly Pro Phe His Gln Thr Gly Leu Leu Asp
20 25 30

Ser Met Leu Glu His Glu Ala Tyr Xaa Ile
35 40

<210> 1505

<211> 72

<212> PRT

<213> Homo sapiens

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<221> SITE

<222> (65)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (72)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1505

Xaa His Xaa Asp Cys Ser Xaa Pro Il Val Ala Ala Gly Val Gly Glu
1 5 10 15

1573

Phe Glu Ala Gly Ile Ser Lys Asn Gly Gln Thr Arg Glu His Ala Leu
 20 25 30

Leu Ala Tyr Thr Leu Gly Val Lys Gln Leu Ile Val Gly Xaa Asn Lys
 35 40 45

Met Asp Ser Thr Glu Pro Pro Tyr Ser Gln Lys Arg Tyr Glu Glu Ile
 50 55 60

Xaa Lys Glu Val Ser Thr Tyr Xaa
 65 70

<210> 1506

<211> 23

<212> PRT

<213> Homo sapiens

<400> 1506

Ala Glu Thr Arg Lys Arg Lys Gly Leu Lys Glu Gly Ile Pro Ala Leu
 1 5 10 15

Asp Asn Phe Leu Asp Lys Leu
 20

<210> 1507

<211> 87

<212> PRT

<213> Homo sapiens

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<222> (79)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1507

Lys Leu Pro Leu Lys Ala Lys Met Gly Lys Glu Lys Thr His Ile Asn
 1 5 10 15

Ile Val Val Ile Gly His Val Asp Ser Gly Lys Ser Thr Thr Thr Gly
 20 25 30

His Leu Ile Tyr Lys Cys Gly Gly Ile Asp Lys Arg Thr Ile Glu Lys
 35 40 45

Phe Glu Lys Glu Ala Ala Glu Met Gly Lys Gly Ser Phe Lys Tyr Ala
 50 55 60

1574

Trp Val Leu Asp Lys Leu Lys Ala Glu Arg Glu Arg Gly Ile Xaa Ile
 65 70 75 80

Gly Tyr Leu Leu Val Glu Ile
 85

<210> 1508

<211> 110

<212> PRT

<213> Homo sapiens

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<220>

<221> SITE

<222> (108)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1508

Pro Asp Pro Xaa Ile Phe Ala Pro Pro Ile Ser Ala Pro Pro Pro Ser
 1 5 10 15

Ser Gly Thr Arg Asp Arg Ser Gln Arg Ser Leu Asp His Tyr Glu Pro
 20 25 30

Pro Val Gln Pro Arg Gly Pro Cys Pro Arg Ser Phe Glu Leu Leu Val
 35 40 45

Arg Ala Val Gly Ala Ala Ala Ala Asp Ala Ala Arg Ala His Arg
 50 55 60

1575

Gln Arg Trp Ser Cys Arg Cys Cys Val Xaa Arg Ala Ala Leu Pro Phe
65 70 75 80

Val Tyr Arg Pro Arg Lys Glu Ser Ile Pro Lys Met Ile Ser Asn Xaa
85 90 95

Gln Val Xaa Ala Ile Gly Pro Thr Val Leu Gln Xaa Gly Lys
100 105 110

<210> 1509

<211> 60

<212> PRT

<213> Homo sapiens

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<223> Xaa equals any of the naturally occurring L-amino acids

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1576

<400> 1509

Ser Phe Val Glu Leu Pro Leu Ala Ser Ile Val Ser Leu His Ala Ser
 1 5 10 15

Ser Xaa Gly Gly Arg Leu Gln Thr Ser Pro Xaa Pro Ile Gln Xaa Thr
 20 25 30

Pro Pro Lys Asp Thr Cys Ser Pro Xaa Leu Xaa Met Ser Leu Xaa Pro
 35 40 45

Xaa Lys Leu Cys Arg Arg Arg His Gly Pro Trp Tyr
 50 55 60

<210> 1510

<211> 116

<212> PRT

<213> Homo sapiens

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<222> (108)

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<220>

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<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1510

Gly Thr Ser Ser Ser Gln Arg Phe Tyr Lys Glu Asn Leu Gly Gln Gly
 1 5 10 15

Trp Met Thr Gln Lys His Glu Arg Met Lys Val Tyr Val Pro Thr Gly
 20 25 30

Phe Ser Ala Phe Pro Phe Glu Leu Leu His Thr Pro Glu Lys Trp Val
 35 40 45

Arg Phe Lys Tyr Pro Lys Leu Ile Ser Tyr Ser Tyr Met Val Arg Gly

1577

50 55 60
 Gly His Phe Ala Ala Phe Glu Glu Pro Glu Leu Leu Ala Gln Asp Ile
 65 70 75 80
 Arg Lys Phe Leu Ser Val Leu Glu Arg His Xaa Xaa Thr Pro Leu Pro
 85 90 95
 Pro Leu Ala Thr Ser Pro His Asn Ala Leu Gln Xaa Phe Leu Gly Glu
 100 105 110
 Asp Asn Xaa Phe
 115

<210> 1511
 <211> 156
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<400> 1511
 Arg Glu Gln Lys Leu Glu Leu His Arg Gly Xaa Gly Arg Ser Arg Thr
 1 5 10 15

Ser Gly Ser Pro Gly Leu Gln Glu Phe Gly Thr Arg Asp Arg Gly Gly
 20 25 30

Phe Pro Pro Arg Gly Pro Arg Gly Ser Arg Gly Asn Pro Ser Gly Gly
 35 40 45

Gly Asn Val Gln His Arg Ala Gly Asp Trp Gln Cys Pro Asn Pro Ser
 50 55 60

Ile Gly Asp Phe Cys Cys Asp Val Ile Val Cys Arg Gly Cys Gly Asn
 65 70 75 80

1578

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Asn | Phe | Ala | Trp | Arg | Thr | Glu | Cys | Asn | Gln | Cys | Gly | Asp | Arg | Gly |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Arg | Gly | Gly | Pro | Gly | Gly | Met | Xaa | Gly | Gly | Arg | Gly | Gly | Leu | Met | Asp |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Arg | Gly | Gly | Pro | Gly | Gly | Met | Phe | Arg | Gly | Gly | Arg | Gly | Gly | Asp | Arg |
| | | | 115 | | | | 120 | | | | | 125 | | | |
| Gly | Gly | Phe | Arg | Gly | Gly | Arg | Gly | Met | Asp | Arg | Gly | Gly | Phe | Xaa | Gly |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Gly | Arg | Arg | Gly | Gly | Pro | Gly | Gly | Pro | Leu | Asp | Leu | | | | |
| 145 | | | | | 150 | | | | | 155 | | | | | |

<210> 1512

<211> 102

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1579

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<400> 1512

Pro Met Arg Arg Pro Arg Gly Glu Pro Ala Pro Gly Pro Arg Asp Arg

1

5

10

15

Leu Arg Glu Arg Pro Ala Gln Gly Pro Gly Ser His Val Arg Val Ala

20

25

30

Pro Leu Ala Thr Val Asn Ile Leu Xaa Ser Leu Cys Gln Leu Arg Cys

35

40

45

Leu Pro Phe Xaa Ala Leu His Phe Val Xaa Ser Pro Gly Phe Ile Xaa

50

55

60

Tyr Ile Ser Gly Thr Pro His Ala Leu Ile Val Arg Arg Tyr Leu Ser

65

70

75

80

Leu Leu Asp Thr Ala Val Glu Leu Xaa Leu Pro Arg Tyr Arg Gly Pro

85

90

95

Arg Leu Pro Arg Xaa Gln

100

<210> 1513

<211> 139

<212> PRT

<213> Homo sapiens

<220>

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<400> 1513

Glu Thr Glu Arg Gly Phe Glu Glu Leu Pro Leu Cys Ser Cys Arg Met

1

5

10

15

Glu Ala Pro Lys Ile Asp Ser Ile Ser Glu Arg Ala Gly His Lys Cys

20

25

30

Met Ala Thr Glu Ser Val Asp Gly Glu Leu Ser Gly Cys Asn Ala Ala

35

40

45

Ile Leu Lys Arg Glu Thr Met Arg Pro Ser Ser Arg Val Ala Leu Met

50

55

60

Val Leu Cys Glu Thr His Arg Ala Arg Met Val Lys His His Cys Cys

65

70

75

80

1580

Pro Gly Cys Gly Tyr Phe Cys Thr Ala Gly Thr Phe Leu Glu Cys His
85 90 95

Pro Asp Phe Arg Val Ala His Arg Phe His Lys Ala Cys Val Ser Gln
100 105 110

Leu Asn Gly Met Val Phe Cys Pro His Cys Gly Glu Asp Thr Ser Glu
115 120 125

Ala Gln Xaa Val Thr Ile Pro Gly Val Thr Gly
130 135

<210> 1514

<211> 72

<212> PRT

<213> Homo sapiens

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1581

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<222> (70)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1514
Ile Arg His Glu Ser Ile Ser Gly Ala Ser Xaa Lys Asp Ile Val His
1 5 10 15

Ser Gly Xaa Ala Tyr Thr Xaa Glu Xaa Ser Ala Arg Gln Xaa Met Arg
20 25 30

Thr Ala Met Lys Xaa Asn Leu Gly Xaa Asp Leu Arg Thr Ala Ser Tyr
35 40 45

Xaa Asn Ala Ile Xaa Xaa Val Phe Lys Val Tyr Xaa Glu Ala Gly Val
50 55 60

Thr Phe Thr Xaa M t Xaa His Gly
65 70

1582

<210> 1515
<211> 88
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (82)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (85)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1515
Leu Tyr Pro Pro Ala Cys Ser Ala Thr Arg Thr Pro Ser Thr Met Thr
1 5 10 15
Thr Ser Ala Ser Ser His Leu Asn Lys Gly Ile Lys Gln Val Tyr Met
20 25 30
Ser Leu Pro Gln Gly Glu Lys Val Gln Ala Met Tyr Ile Trp Ile Asp
35 40 45
Gly Thr Gly Glu Gly Leu Arg Cys Lys Thr Arg Thr Leu Asp Ser Glu
50 55 60
Pro Lys Cys Val Glu Glu Leu Pro Glu Trp Asn Phe Asp Gly Ser Ser
65 70 75 80
Thr Xaa Gln Ser Xaa Gly Ser Ser
85

<210> 1516
<211> 105
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (8)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (10)
<223> Xaa equals any of the naturally occurring L-amino acids

1583

<220>

<221> SITE

<222> (11)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (27)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (38)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (87)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (89)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (94)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (103)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1516

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Arg | Glu | Ser | Gln | Asp | Thr | Xaa | Phe | Xaa | Xaa | Leu | Val | Glu | Arg | Val |
| 1 | | | | 5 | | | | | | 10 | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Gln | Gln | Leu | Glu | Gly | Ala | Phe | Ala | Leu | Xaa | Phe | Lys | Ser | Val | His |
| | | | 20 | | | | | | 25 | | | | | 30 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Pro | Gly | Gln | Ala | Xaa | Gly | Thr | Arg | Arg | Gly | Ser | Pro | Leu | Leu | Ile |
| | | 35 | | | | | | 40 | | | | | 45 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Val | Arg | Ser | Glu | His | Lys | Leu | Ser | Thr | Asp | His | Ile | Pro | Ile | Leu |
| | | 50 | | | | | 55 | | | | | 60 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Arg | Thr | Gly | Lys | Asp | Lys | Lys | Gly | Ser | Cys | Asn | Leu | Ser | Arg | Val |
| 65 | | | | | | 70 | | | | | 75 | | | | 80 |

1584

Asp Ser Thr Thr Cys Leu Xaa Pro Xaa Glu Glu Lys Ala Xaa Glu Tyr
85 90 95

Tyr Phe Ala Ser Asp Ala Xaa Ala Ala
100 105

<210> 1517

<211> 121

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (2)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (19)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (22)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (33)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (71)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (72)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

1585

<222> (100)

<223> xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (106)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (109)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (110)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1517

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Xaa | Glu | Lys | Arg | Glu | Arg | Glu | Arg | Glu | Arg | Leu | Val | Ile | Arg | Gln |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Pro | Xaa | Val | Gln | Xaa | Leu | Gln | Ala | Tyr | Lys | Pro | Arg | Glu | Asn | Asp |
| | | | 20 | | | | | 25 | | | | | | 30 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Leu | Ala | Leu | Glu | Lys | Ala | Asp | Val | Val | Met | Val | Thr | His | Gln | Ser |
| | | 35 | | | | | 40 | | | | | | 45 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ala | Arg | Leu | Ala | Gly | Gly | Arg | Glu | Ala | Leu | Arg | Arg | Gly | Ala | Arg |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Val | Ser | Cys | Asp | Ser | Xaa | Xaa | Ser | Ser | Phe | Pro | Thr | Gln | Arg | Ser |
| | 65 | | | | | 70 | | | | 75 | | | | 80 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Thr | Gln | Asn | Leu | Lys | Gly | Ser | Phe | Ile | Glu | Cys | Lys | Thr | Cys | Gln |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Thr | Ala | Xaa | Gly | Asn | Ser | Lys | Pro | Xaa | Phe | Ser | Xaa | Xaa | Glu | Gly |
| | | | 100 | | | | | 105 | | | | | | 110 | |

| | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Phe | Val | Ser | Trp | Lys | Asn | Lys | Leu |
| | | 115 | | | | | 120 | |

<210> 1518

<211> 146

<212> PRT

<213> Homo sapiens

<220>

1586

<221> SITE

<222> (71)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (118)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (132)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (135)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (138)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1518

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Gly | Pro | Ala | Gln | Arg | Gly | Glu | Gly | Ala | Arg | Glu | Ala | Asn | Lys | Lys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Glu | Lys | Gln | Leu | Gln | Lys | Asp | Lys | Gln | Val | Tyr | Arg | Ala | Thr | His |
| | | | 20 | | | | | | 25 | | | | | 30 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Leu | Leu | Leu | Leu | Gly | Ala | Gly | Glu | Ser | Gly | Lys | Ser | Thr | Ile | Val |
| | | | 35 | | | | | 40 | | | | | 45 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Gln | Met | Arg | Ile | Leu | His | Val | Asn | Gly | Phe | Asn | Gly | Asp | Ser | Glu |
| | | 50 | | | | 55 | | | | | | 60 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Ala | Thr | Lys | Val | Gln | Xaa | Ile | Lys | Asn | Asn | Leu | Lys | Glu | Ala | Ile |
| | 65 | | | | | 70 | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Thr | Ile | Val | Ala | Ala | Met | Ser | Asn | Leu | Val | Pro | Pro | Val | Glu | Leu |
| | | | | 85 | | | | | | 90 | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Asn | Pro | Glu | Asn | Gln | Phe | Arg | Val | Asp | Tyr | Ile | Leu | Ser | Val | Met |
| | | | 100 | | | | | | 105 | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Val | Pro | Asp | Phe | Xaa | Phe | Pro | Pro | Glu | Phe | Tyr | Glu | His | Ala | Lys |
| | | | 115 | | | | | 120 | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Leu | Trp | Xaa | Asp | Glu | Xaa | Val | Arg | Xaa | Cys | Tyr | Glu | Arg | Ser | Asn |
| | | | | | | 135 | | | | | | 140 | | | |

1587

Glu Tyr
145

<210> 1519

<211> 137

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (72)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1519

Asp Ser Gln Arg Gln Ala Thr Lys Asp Ala Gly Val Ile Ala Gly Leu
1 5 10 15

Asn Val Leu Arg Ile Ile Asn Glu Pro Thr Ala Ala Ala Ile Ala Tyr
20 25 30

Gly Leu Asp Arg Thr Gly Lys Gly Glu Arg Asn Val Leu Ile Phe Asp
35 40 45

Leu Gly Gly Gly Thr Phe Asp Val Ser Ile Leu Thr Ile Asp Asp Gly
50 55 60

Ile Phe Glu Val Lys Ala Thr Xaa Gly Asp Thr His Leu Gly Gly Glu
65 70 75 80

Asp Phe Asp Asn Arg Leu Val Asn His Phe Val Glu Glu Phe Lys Arg
85 90 95

Lys His Lys Lys Asp Ile Ser Gln Asn Lys Arg Ala Val Arg Arg Leu
100 105 110

Arg Thr Ala Ala Arg Gly Pro Arg Gly Pro Cys Arg Pro Ala Pro Arg
115 120 125

Pro Ala Trp Arg Ser Thr Ser Leu Phe
130 135

<210> 1520

<211> 100

<212> PRT

<213> Homo sapiens

1588

<220>

<221> SITE

<222> (16)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (19)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (45)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (99)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1520

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Arg | Lys | Ser | Ser | Trp | Lys | Arg | Trp | Trp | Pro | Gln | Ser | Lys | Leu | Xaa |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Arg | Xaa | Ile | Val | Thr | Ile | Gly | Ile | Lys | Ala | Met | Ala | Thr | Met | Asp |
| | | | 20 | | | | | 25 | | | | | | 30 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Thr | Ala | Lys | Val | Thr | Val | Val | Met | Glu | Asp | Met | Xaa | Tyr | Thr | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Asn | Asn | Tyr | Tyr | Gly | Tyr | Gly | Asp | Tyr | Ser | Asn | Gln | Gln | Ser | Gly |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Gly | Lys | Val | Ser | Arg | Arg | Gly | Gly | His | Gln | Asn | Ser | Tyr | Lys | Pro |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Leu | Asn | Tyr | Ser | Ile | Cys | Asn | Leu | Ser | Pro | Thr | Gly | Gly | Glu | Ala |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | |
|-----|-----|-----|-----|
| Tyr | Phe | Xaa | Ile |
| | | | 100 |

<210> 1521

<211> 129

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

1589

<222> (72)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (95)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (110)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (111)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (123)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1521

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Ala | Trp | Ala | Leu | Ala | Pro | Gly | Pro | Val | Leu | Phe | Ser | Asn | Met | Val |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Leu | Lys | Phe | Pro | Gly | Ser | Ser | Cys | Met | Ala | Ala | Leu | Thr | Val | Thr |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Met | Val | Leu | Asn | Ser | Pro | Leu | Ala | Leu | Ala | Gly | Asp | Thr | Arg | Pro |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Phe | Leu | Glu | Gln | Val | Lys | His | Glu | Cys | His | Phe | Phe | Asn | Gly | Thr |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Arg | Val | Arg | Phe | Leu | Asp | Xaa | Tyr | Phe | Tyr | His | Gln | Glu | Glu | Tyr |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Arg | Phe | Asp | Ser | Asp | Val | Gly | Glu | Tyr | Arg | Ala | Val | Thr | Xaa | Leu |
| | | | 85 | | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Arg | Pro | Asn | Ser | Glu | Tyr | Trp | Asn | Ser | Gln | Lys | Asp | Xaa | Xaa | Asp |
| | | 100 | | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Ser | Gly | Pro | Arg | Trp | Thr | Pro | Thr | Ala | Xaa | Thr | Leu | Arg | Gly | Trp |
| | | 115 | | | | | 120 | | | | | 125 | | | |

Val

1590

<210> 1522
<211> 113
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (1)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (2)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (6)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (40)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (44)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (53)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (58)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (65)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (67)
<223> Xaa equals any of the naturally occurring L-amino acids

1591

<220>

<221> SITE

<222> (74)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (80)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (90)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (93)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (97)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (110)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1522

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Xaa | Thr | Asp | Ser | Xaa | Arg | Pro | Asp | Ser | Arg | Val | Asp | Pro | Arg | Val |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Glu | Val | Thr | Asp | Tyr | Ala | Ile | Ala | Arg | Arg | Ile | Val | Asp | Leu | His |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Arg | Ile | Glu | Glu | Ser | Ile | Xaa | Asn | Ile | Tyr | Xaa | Leu | Asp | Asp | Ile |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Arg | Tyr | Leu | Xaa | Tyr | Ala | Arg | Lys | Xaa | Lys | Pro | Lys | Asn | Ser | Lys |
| | | 50 | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Ser | Xaa | Asp | Phe | Ile | Val | Glu | Gln | Xaa | Lys | His | Leu | Arg | Pro | Xaa |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Gly | Phe | Trp | Ser | Ser | Pro | Val | Phe | Xaa | Glu | Gly | Xaa | Ser | Cys | Gly |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|---|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Ile | Glu | Gly | L | u | Gly | Ser | Val | Ser | Leu | Gly | Ser | Gln | Xaa | Leu | Arg |
|-----|-----|-----|-----|---|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

1592

100

105

110

Val

<210> 1523

<211> 32

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (16)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (31)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1523

Pro Cys Lys Gly Ser Ile Ile Thr Trp Ser Leu Ile Arg Asp Leu Xaa

1

5

10

15

Glu Trp Leu His Glu Gly Gln Leu Ala Leu Thr Phe Asn Gln Xaa Asn

20

25

30

<210> 1524

<211> 28

<212> PRT

<213> Homo sapiens

<400> 1524

Pro Cys Lys Gly Ser Ile Ile Thr Cys Ser Leu Asn Arg Asp Leu Tyr

1

5

10

15

Glu Trp Leu His Glu Gly Ser Ala Val Ser Tyr Phe

20

25

<210> 1525

<211> 92

<212> PRT

1593

<213> Homo sapiens

<220>

<221> SITE

<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (6)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (21)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (23)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (71)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (75)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (76)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (80)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (92)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1525

Xaa Glu Gln Lys Leu Xaa Leu His Arg Gly Gly Gly Arg Ser Arg Thr

1

5

10

15

1594

Ser Gly Ser Pro Xaa Leu Xaa Glu Phe Gly Thr Ser Gly Thr Arg Pro
 20 25 30
 Cys Gly Val Tyr Thr Pro Arg Cys Gly Ser Gly Leu Leu Cys Tyr Pro
 35 40 45
 Pro Arg Gly Val Glu Lys Pro Leu His Thr Leu Met His Gly Gln Gly
 50 55 60
 Val Cys Met Glu Leu Ala Xaa Ile Glu Ala Xaa Xaa Glu Ser Leu Xaa
 65 70 75 80
 Pro Ser Asp Lys Asp Glu Gly Asp His Pro Asn Xaa
 85 90

<210> 1526

<211> 154

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (118)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1526

Xaa Glu Pro Ser Pro Gly Ile Phe Arg Trp Phe His Leu Val Asn Arg
 1 5 10 15
 Thr Glu Gln Arg Glu Leu Thr Met Glu Phe Gly Leu Ser Trp Leu Phe
 20 25 30
 Leu Val Ala Ile Leu Lys Gly Val Gln Cys Glu Val Gln Leu Val Glu
 35 40 45
 Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys
 50 55 60
 Thr Val Ser Gly Phe Thr Phe Arg Asn Tyr Ala Met Ser Trp Val Arg
 65 70 75 80
 Gln Gly Pro Gly Lys Gly Leu Glu Trp Val Ser Ala Ile Asp Gly Ser
 85 90 95

1595

Gly Tyr Asn Thr Tyr Tyr Glu Arg Ser Leu Gln Gly Arg Phe Ser Val
 100 105 110

Ser Arg Asp Asn Ser Xaa Asn Thr Leu Tyr Leu Gln Met Asn Ser Leu
 115 120 125

Gly Ala Glu Asp Thr Ala Ile Tyr Tyr Cys Ala Lys Thr Glu Arg Met
 130 135 140

Gly Thr Gly Trp Tyr Gly Arg Asn Asp Tyr
 145 150

<210> 1527

<211> 135

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (95)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (129)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (133)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (134)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1527

Gly Lys Leu Val Arg Leu Gln Val Pro Val Arg Asn Ser Arg Val Asp
 1 5 10 15

Pro Arg Val Arg Thr Val Thr Pro Gly Glu Thr Ala Ser Ile Ser Cys
 20 25 30

Arg Ser Ser Gln Thr Leu Leu His Val Asn Gly His Asn Tyr Leu Asp
 35 40 45

Trp Tyr Met Gln Lys Pro Gly Gln Pro Pro Gln Leu Val Val Tyr Arg
 50 55 60

1596

Gly Ser Asn Arg Ala Ser Gly Val Pro Asp Arg Ph Ser Gly Gly Gly
 65 70 75 80
 Ser Gly Thr Asp Phe Thr Leu Arg Ile Thr Thr Val Glu Ala Xaa Asp
 85 90 95
 Val Gly Val Tyr Tyr Cys Met Gln Ala Leu Gln Ser Pro Tyr Thr Phe
 100 105 110
 Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg Thr Val Gly Cys Thr Ile
 115 120 125
 Xaa Leu His Leu Xaa Xaa Ile
 130 135

<210> 1528

<211> 139

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (117)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (137)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1528

Arg Glu Gln Lys Leu Glu Leu His Arg Gly Gly Gly Arg Ser Arg Thr
 1 5 10 15

Ser Gly Ser Pro Gly Leu Gln Glu Phe Gly Thr Ser Gly Trp Ala Leu
 20 25 30

Arg Ile Ser Arg Phe Leu Pro Gly Phe His Ser Phe Ala Pro Cys Thr
 35 40 45

Val Ala Pro Ser Leu Arg Ala Gln Pro Ala Lys Gln Arg Ala Pro Val
 50 55 60

Ala Gly Val Met Gln Arg Ala Arg Pro Thr Leu Trp Ala Ala Ala Leu
 65 70 75 80

Thr Leu Leu Val Leu L u Arg Gly Pro Pro Val Ala Arg Ala Gly Ala
 85 90 95

1597

Ser Ser Gly Gly Leu Gly Pro Val Val Arg Cys Glu Pro Cys Asp Ala
 100 105 110

Arg Ala Leu Ala Xaa Cys Ala Pro Ser Ala Arg Arg Val Arg Arg Asn
 115 120 125

Leu Val Arg Gln Ala Gly Leu Ala Xaa Ala Ala
 130 135

<210> 1529

<211> 135

<212> PRT

<213> Homo sapiens

<400> 1529

Trp Ile Pro Arg Ala Ala Gly Ile Arg His Glu Ile Asp Asp Thr Asn
 1 5 10 15

Ile Thr Arg Leu Gln Leu Glu Thr Glu Ile Glu Ala Leu Lys Glu Glu
 20 25 30

Leu Leu Phe Met Lys Lys Asn His Glu Glu Glu Val Lys Gly Leu Gln
 35 40 45

Ala Gln Ile Ala Ser Ser Gly Leu Thr Val Glu Val Asp Ala Pro Lys
 50 55 60

Ser Gln Asp Leu Ala Lys Ile Met Ala Asp Ile Arg Ala Gln Tyr Asp
 65 70 75 80

Glu Leu Ala Arg Lys Asn Arg Glu Glu Leu Asp Lys Tyr Trp Ser Gln
 85 90 95

Gln Ile Glu Glu Ser Thr Thr Val Val Thr Thr Gln Ser Ala Glu Val
 100 105 110

Gly Ala Ala Glu Thr Thr Leu Thr Glu Leu Arg Arg Thr Val Gln Ser
 115 120 125

Leu Glu Ile Asp Leu Gly Leu
 130 135

<210> 1530

<211> 132

<212> PRT

<213> Homo sapiens

1598

<400> 1530

Trp Ile Pro Arg Ala Ala Gly Ile Arg His Glu Gln Val Pro Ala Arg
 1 5 10 15
 Lys Lys Arg Pro Lys Arg Leu Arg Thr Gly Asn Met Val Arg Ser Gly
 20 25 30
 Asn Lys Ala Ala Val Val Leu Cys Met Asp Val Gly Phe Thr Met Ser
 35 40 45
 Asn Ser Ile Pro Gly Ile Glu Ser Pro Phe Glu Gln Ala Lys Lys Val
 50 55 60
 Ile Thr Met Phe Val Gln Arg Gln Val Phe Ala Glu Asn Lys Asp Glu
 65 70 75 80
 Ile Ala Leu Val Leu Phe Gly Thr Asp Gly Thr Asp Asn Pro Leu Ser
 85 90 95
 Gly Gly Asp Gln Tyr Gln Asn Ile Thr Val His Arg His Leu Met Leu
 100 105 110
 Pro Asp Phe Asp Leu Leu Glu Asp Ile Glu Lys Gln Asn Pro Thr Arg
 115 120 125
 Phe Ser Thr Gly
 130

<210> 1531

<211> 94

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (18)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (27)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (34)

<223> Xaa equals any of the naturally occurring L-amino acids

1599

<220>

<221> SITE

<222> (61)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (69)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (75)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (78)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (94)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1531

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Lys | Arg | Leu | Lys | Gly | Glu | Glu | Gln | Lys | Leu | Leu | Arg | Asn | Ala | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Xaa | Gln | Lys | Met | Ala | Cys | Gln | Met | Thr | Xaa | Asn | His | Ser | Ser | Val |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Xaa | Leu | Lys | Gly | Ser | Ser | Leu | Gln | Asp | Arg | Arg | Ala | Ser | Arg | Phe |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Ile | Lys | Ser | Val | Gln | Lys | Ser | Ser | Gly | Val | Gln | Xaa | Asp | Pro | Ser |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ser | Ile | Ser | Xaa | Pro | Ser | Leu | Thr | Ala | Xaa | Trp | Ser | Xaa | Leu | Pro |
| | 65 | | | | 70 | | | | | 75 | | | | 80 | |

| | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Trp | His | Leu | Arg | Gly | Pro | Lys | Ala | Ala | Lys | Thr | Leu | Lys | Xaa |
| | | | | 85 | | | | | 90 | | | | |

<210> 1532

<211> 153

<212> PRT

<213> Homo sapiens

1600

<400> 1532

Gln Thr Thr Met Cys Tyr Gly Lys Cys Ala Arg Cys Ile Gly His Ser
 1 5 10 15

Leu Val Gly Leu Ala Leu Leu Cys Ile Ala Ala Asn Ile Leu Leu Tyr
 20 25 30

Phe Pro Asn Gly Glu Thr Lys Tyr Ala Ser Glu Asn His Leu Ser Arg
 35 40 45

Phe Val Trp Phe Phe Ser Gly Ile Val Gly Gly Gly Leu Leu Met Leu
 50 55 60

Leu Pro Ala Phe Val Phe Ile Gly Leu Glu Gln Asp Asp Cys Cys Gly
 65 70 75 80

Cys Cys Gly His Glu Asn Cys Gly Lys Arg Cys Ala Met Leu Ser Ser
 85 90 95

Val Leu Ala Ala Leu Ile Gly Ile Ala Gly Ser Gly Tyr Cys Val Ile
 100 105 110

Val Ala Ala Leu Gly Leu Ala Glu Gly Pro Leu Cys Leu Asp Ser Leu
 115 120 125

Gly Gln Trp Asn Tyr Thr Phe Ala Ser Thr Glu Gly Gln Val Pro Ser
 130 135 140

Gly Tyr Leu His Met Val Arg Val His
 145 150

<210> 1533

<211> 142

<212> PRT

<213> Homo sapiens

<400> 1533

Leu Cys Leu Leu Arg Thr Thr Val Thr Glu Val Ser Arg Ala Phe Ser
 1 5 10 15

Leu Leu Cys Lys Met Ala Thr Leu Lys Glu Lys Leu Ile Ala Pro Val
 20 25 30

Ala Glu Glu Glu Ala Thr Val Pro Asn Asn Lys Ile Thr Val Val Gly
 35 40 45

Val Gly Gln Val Gly Met Ala Cys Ala Ile Ser Ile Leu Gly Lys Ser
 50 55 60

1601

Leu Ala Asp Glu Leu Ala Leu Val Asp Val Leu Glu Asp Lys Leu Lys
 65 70 75 80
 Gly Glu Met Met Asp Leu Gln His Gly Ser Leu Phe Leu Gln Thr Pro
 85 90 95
 Lys Ile Leu Ala Asp Lys Asp Tyr Ser Val Thr Ala Asn Ser Lys Ile
 100 105 110
 Val Val Val Thr Ala Gly Val Arg Gln Gln Glu Gly Glu Ser Arg Leu
 115 120 125
 Asn Leu Val Gln Arg Asn Val Asn Val Phe Lys Phe Ile Ile
 130 135 140

<210> 1534

<211> 67

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (42)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (48)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (54)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (61)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1534

Ala His Cys His Ala Pro Pro Thr Thr Ala Arg Arg Ala Phe Pro Ile
 1 5 10 15
 Pro Phe Gly Ser Lys Ser Asn Met Ala Thr Leu Lys Asp Gln Leu Ile
 20 25 30
 Tyr Asn Leu Leu Lys Glu Glu Gln Thr Xaa Gln Asn Lys Ile Thr Xaa
 35 40 45

1602

Val Gly Val Gly Ala Xaa Gly Met Ala Cys Ala Ile Xaa Ile Leu Met
50 55 60

Lys Asp Leu
65

<210> 1535
<211> 72
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (1)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (8)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1535
Xaa Lys Lys Tyr Leu Gly Asp Xaa Ile Glu Gly Thr Pro Ala Gly Thr
1 5 10 15

Gly Pro Glu Phe Pro Gly Leu Leu Thr Cys Leu Leu Gln Leu Ile Met
20 25 30

Val Thr Asn Lys Ala Ile Ala Ser Gln Ile Ser Gln Ile Lys His Phe
35 40 45

Phe His Cys Ile Leu Val Val Val Cys Pro Asn Ser Ser Met Tyr Leu
50 55 60

Ile Met Ser Gly Ser Ile Leu His
65 70

<210> 1536
<211> 80
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (20)
<223> Xaa equals any of the naturally occurring L-amino acids

1603

<220>
 <221> SITE
 <222> (45)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (50)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (58)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (68)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1536
 Gly Lys Ala Trp Gly Ser Glu Cys Glu Lys Cys Pro Leu Pro Gly Thr
 1 5 10 15
 Glu Ala Phe Xaa Glu Ile Cys Pro Ala Gly His Gly Tyr Thr Tyr Ala
 20 25 30
 Ser Ser Asp Ile Arg Leu Ser Met Arg Lys Ala Glu Xaa Glu Glu Leu
 35 40 45
 Ala Xaa Pro Pro Arg Glu Gln Gly Gln Xaa Ser Ser Trp Ala Leu Pro
 50 55 60
 Gly Pro Thr Xaa Lys Gln Pro Leu Arg Val Arg His Gly His Leu Ala
 65 70 75 80

<210> 1537
 <211> 137
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (58)
 <223> Xaa equals any of the naturally occurring L-amino acids

1604

<220>

<221> SITE

<222> (74)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (122)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (134)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (136)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (137)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1537

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Lys | Gln | Cys | Gln | Asp | Ser | Lys | Asp | Ser | Asn | His | Leu | Pro | Lys | Met |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Leu | Ser | Ala | Phe | Thr | Leu | Phe | Leu | Ala | Leu | Ile | Gly | Gly | Thr | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Gln | Tyr | Tyr | Asp | Tyr | Asp | Phe | Pro | Leu | Ser | Ile | Tyr | Gly | Gln | Ser |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Pro | Asn | Cys | Ala | Pro | Glu | Cys | Asn | Xaa | Pro | Glu | Ser | Tyr | Pro | Ser |
| | 50 | | | | | | 55 | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Met | Tyr | Cys | Asp | Glu | Leu | Lys | Leu | Xaa | Ser | Val | Pro | Met | Val | Pro |
| | 65 | | | | | 70 | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Gly | Ile | Lys | Tyr | Leu | Tyr | Leu | Arg | Asn | Asn | Gln | Ile | Asp | His | Ile |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Glu | Lys | Ala | Phe | Glu | Asn | Val | Thr | Asp | Leu | Gln | Trp | Leu | Ile | Leu |
| | | | 100 | | | | | | 105 | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | His | Asn | Leu | Leu | Glu | Asn | Ser | Lys | Xaa | Lys | Gly | Arg | Val | Phe | Ser |
| | | 115 | | | | | | 120 | | | | 125 | | | |

1605

Lys Leu Lys Gln Leu Xaa Lys Xaa Xaa
 130 135

<210> 1538

<211> 144

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (134)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (137)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1538

Tyr Gln Val Tyr Ser Lys Ile Gln Ala Thr Asn Thr Trp Leu Phe Leu
 1 5 10 15

Ser Ser Cys Asn Gly Asn Glu Thr Ser Leu Trp Asp Cys Lys Asn Trp
 20 25 30

Gln Trp Gly Gly Leu Thr Cys Asp His Tyr Glu Glu Ala Lys Ile Thr
 35 40 45

Cys Ser Ala His Arg Glu Pro Arg Leu Val Gly Gly Asp Ile Pro Cys
 50 55 60

Ser Gly Arg Val Glu Val Lys His Gly Asp Thr Trp Gly Ser Ile Cys
 65 70 75 80

Asp Ser Asp Phe Ser Leu Glu Ala Ala Ser Val Leu Cys Arg Glu Leu
 85 90 95

Gln Cys Gly Thr Val Val Ser Ile Leu Gly Gly Ala His Phe Gly Glu
 100 105 110

Gly Met Asp Arg Ser Gly Leu Lys Asn Ser Ser Val Glu Gly His Glu
 115 120 125

Ser Pro Ser Phe Ile Xaa Pro Val Xaa Thr Pro Pro Lys Arg Asn Leu
 130 135 140

1606

<210> 1539
 <211> 85
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (35)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1539

Asn Met Ala Gly Val Glu Glu Val Ala Ala Ser Gly Ser His Leu Asn
 1 5 10 15

Gly Asp Leu Asp Pro Asp Asp Arg Glu Glu Gly Ala Ala Ser Thr Ala
 20 25 30

Glu Glu Xaa Ala Lys Lys Lys Arg Arg Lys Lys Lys Lys Ser Lys Gly
 35 40 45

Pro Ser Ala Gly Lys Glu Ser Phe Met Phe Ser Gln Ser Pro Pro Gly
 50 55 60

Thr Ala Glu Leu Phe Gly Ser Gly Pro Leu Arg Gly Pro Gly Pro Gly
 65 70 75 80

Pro Gln Ser Pro Asp
 85

<210> 1540
 <211> 36
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (9)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (18)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (22)

1607

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (27)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1540

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Val | Gly | Phe | Arg | Glu | Gly | Thr | Xaa | Gly | Ala | Gln | Thr | Gln | Arg | Ile |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Xaa | Arg | Val | Pro | Xaa | Asn | Trp | Lys | Met | Xaa | Phe | Glu | Pro | Ile | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | |
|-----|-----|-----|-----|
| Ser | Thr | Lys | Phe |
| | | 35 | |

<210> 1541

<211> 144

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (5)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (19)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (21)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (107)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

1608

<222> (123)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (131)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (132)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (143)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1541

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Thr | Xaa | Ala | Xaa | Gly | Glu | Arg | Ala | Cys | Arg | Ser | Thr | Leu | Val | Asp |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Lys | Xaa | Val | Xaa | Thr | Val | Phe | Ser | Leu | Gly | Ala | Cys | Met | Glu | Gly |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Asn | Ile | Leu | Leu | Asn | Arg | Leu | Leu | Gly | Ile | Ser | Leu | Tyr | Ala | Glu |
| | 35 | | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Pro | Ala | Lys | Gly | Glu | Val | Trp | Ser | Glu | Asp | Val | Arg | Lys | Leu | Ala |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Val | His | Glu | Ser | Glu | Gly | Leu | Leu | Gly | Tyr | Ile | Tyr | Cys | Asp | Phe |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Gln | Arg | Ala | Asp | Lys | Pro | His | Gln | Asp | Cys | His | Phe | Thr | Ile | Arg |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Gly | Arg | Leu | Lys | Gly | Arg | Trp | Glu | Thr | Xaa | Gln | Leu | Pro | Val | Val |
| | | | 100 | | | | | 105 | | | | 110 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ser | Tyr | Ala | Gly | Ile | Phe | Pro | Val | Pro | Xaa | Arg | Glu | Phe | Ser | Asn |
| | | | 115 | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Gly | Xaa | Xaa | Leu | Gly | Met | Met | Gly | Lys | Pro | Phe | Pro | Gly | Xaa | Gly |
| | | | | 130 | | | 135 | | | | | 140 | | | |

1609

<210> 1542

<211> 145

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (40)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1542

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Glu | Arg | Thr | Pro | Cys | Arg | Arg | Pro | Ala | Glu | Met | Leu | Arg | Leu | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Val | Phe | Arg | Gln | Met | Arg | Pro | Val | Ser | Arg | Val | Leu | Ala | Pro | His |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Thr | Arg | Ala | Tyr | Ala | Lys | Xaa | Val | Lys | Phe | Gly | Ala | Asp | Ala | Arg |
| | 35 | | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Leu | Met | Leu | Gln | Gly | Val | Asp | Leu | Leu | Ala | Asp | Ala | Val | Ala | Val |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Met | Gly | Pro | Lys | Gly | Arg | Thr | Val | Ile | Ile | Glu | Gln | Ser | Trp | Gly |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Pro | Lys | Val | Thr | Lys | Asp | Gly | Val | Thr | Val | Ala | Lys | Ser | Ile | Asp |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Lys | Asp | Lys | Tyr | Lys | Asn | Ile | Gly | Ala | Lys | Leu | Val | Gln | Asp | Val |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Asn | Asn | Thr | Asn | Glu | Glu | Ala | Gly | Asp | Gly | Thr | Thr | Thr | Ala | Thr |
| | | | 115 | | | | 120 | | | | | | 125 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Leu | Ala | Arg | Ser | Ile | Ala | Lys | Glu | Gly | Phe | Glu | Lys | Ile | Ser | Lys |
| | 130 | | | | | 135 | | | | | 140 | | | | |

Gly

145

<210> 1543

<211> 135

<212> PRT

<213> Homo sapiens

<400> 1543

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Phe | Gly | Ala | Asp | Ala | Arg | Ala | Leu | M t | Leu | Gln | Gly | Val | Asp | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

1610

Leu Ala Asp Ala Val Ala Val Thr Met Gly Pro Lys Gly Arg Thr Val
20 25 30

Ile Ile Glu Gln Ser Trp Gly Ser Pro Lys Val Thr Lys Asp Gly Val
35 40 45

Thr Val Ala Lys Ser Ile Asp Leu Lys Asp Lys Tyr Lys Asn Ile Gly
50 55 60

Ala Lys Leu Val Gln Asp Val Ala Asn Asn Thr Asn Glu Glu Ala Gly
65 70 75 80

Asp Gly Thr Thr Thr Ala Thr Val Leu Ala Arg Ser Ile Ala Lys Glu
85 90 95

Gly Phe Glu Lys Ile Ser Lys Gly Ala Asn Pro Val Glu Ile Arg Arg
100 105 110

Gly Val Met Leu Ala Val Asp Ala Val Ile Ala Glu Leu Lys Lys Gln
115 120 125

Ser Lys Pro Val Thr Thr Pro
130 135

<210> 1544

<211> 84

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (68)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (72)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (77)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (80)

<223> Xaa equals any of the naturally occurring L-amino acids

1611

<400> 1544

Cys Glu Phe Lys Arg Val Pro Gln Cys Pro Ser Gly Arg Val Tyr Val
 1 5 10 15

Leu Lys Phe Lys Ala Gly Ser Lys Arg Leu Phe Phe Trp Met Gln Glu
 20 25 30

Pro Lys Thr Asp Gln Asp Glu Glu His Cys Arg Lys Val Asn Glu Leu
 35 40 45

Ser Gly Thr Thr Pro Arg Cys Leu Gly His Trp Gly Pro Ala Glu Gln
 50 55 60

Arg Pro Arg Xaa Leu Cys Ala Xaa Arg Leu Arg Trp Xaa Ala Glu Xaa
 65 70 75 80

Ala Gly Glu Thr

<210> 1545

<211> 22

<212> PRT

<213> Homo sapiens

<400> 1545

Tyr Leu Arg Leu Ile Tyr Ser Thr Ser Ile Thr Leu Leu Pro Ile Ser
 1 5 10 15

Asn Asn Val Lys Ile Lys
 20

<210> 1546

<211> 112

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (29)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (49)

<223> Xaa equals any of the naturally occurring L-amino acids

1612

<220>
<221> SITE
<222> (51)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (56)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (57)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (58)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (64)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (67)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (70)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (82)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (85)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (100)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<223> Xaa equals any of the naturally occurring L-amino acids

<223> Xaa equals any of the naturally occurring L-amino acids

<223> Xaa equals any of the naturally occurring L-amino acids

<223> Xaa equals any of the naturally occurring L-amino acids

<223> Xaa equals any of the naturally occurring L-amino acids

Arg Asp Lys Xaa Glu Xaa Xaa Gln Thr Pro Xaa Xaa Phe Xaa Xaa Pro
100 105 110

1614

<210> 1547

<211> 142

<212> PRT

<213> Homo sapiens

<400> 1547

Lys Val Ser Ala Val Met Ala Phe Leu Ala Ser Gly Pro Tyr Leu Thr
1 5 10 15

His Gln Gln Lys Val Leu Arg Leu Tyr Lys Arg Ala Leu Arg His Leu
20 25 30

Glu Ser Trp Cys Val Gln Arg Asp Lys Tyr Arg Tyr Phe Ala Cys Leu
35 40 45

Met Arg Ala Arg Phe Glu Glu His Lys Asn Glu Lys Asp Met Ala Lys
50 55 60

Ala Thr Gln Leu Leu Lys Glu Ala Glu Glu Glu Phe Trp Tyr Arg Gln
65 70 75 80

His Pro Gln Pro Tyr Ile Phe Pro Asp Ser Pro Gly Gly Thr Ser Tyr
85 90 95

Glu Arg Tyr Asp Cys Tyr Lys Val Pro Glu Trp Cys Leu Asp Asp Trp
100 105 110

His Pro Ser Glu Lys Ala Met Tyr Pro Asp Tyr Phe Ala Lys Arg Glu
115 120 125

Gln Trp Lys Lys Leu Arg Glu Gly Lys Leu Gly Thr Arg Gly
130 135 140

<210> 1548

<211> 98

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1615

<221> SITE
<222> (9)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (11)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (12)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (22)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (32)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (36)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (45)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (62)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (65)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (66)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE

1616

<222> (82)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (84)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (92)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (95)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (97)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1548

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Tyr | Tyr | Xaa | Leu | Gly | Phe | Leu | Xaa | Leu | Xaa | Xaa | Arg | Leu | Pro | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Ala | Ala | Lys | Arg | Xaa | His | Asp | Glu | Leu | Gly | Asn | Glu | Arg | Pro | Xaa |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Tyr | Met | Xaa | Glu | His | Asn | Gln | Leu | Asn | Gly | Trp | Xaa | Ser | Asp | Glu |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Asp | Trp | Asn | Glu | Lys | Leu | Tyr | Pro | Val | Trp | Lys | Arg | Xaa | Asp | Met |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Xaa | Glu | Lys | Leu | Leu | Glu | Gly | Arg | Pro | Val | Cys | Lys | Ala | Val | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Xaa | Asp | Xaa | Pro | Thr | Leu | Gly | Gly | Leu | Lys | Xaa | Asn | Ile | Xaa | Arg |
| | | | | 85 | | | | | 90 | | | | | 95 | |

Xaa Thr

<210> 1549

<211> 138

<212> PRT

<213> Homo sapiens

1617

<220>

<221> SITE

<222> (60)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (72)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (73)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (122)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (123)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (128)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (136)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1549

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Cys | Ser | Leu | Glu | Gln | Arg | Ser | Phe | Ile | Ser | Val | Arg | Leu | Leu | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Leu | Ser | Ala | Cys | Arg | His | Pro | Met | Glu | Asp | Ser | Met | Asp | Met | Asp |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ser | Pro | Leu | Arg | Pro | Gln | Asn | Tyr | Leu | Phe | Gly | Cys | Glu | Leu | Lys |
| | | 35 | | | | 40 | | | | | 45 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Asp | Lys | Asp | Tyr | His | Phe | Lys | Val | Asp | Asn | Xaa | Glu | Asn | Glu | His |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Leu | Ser | Leu | Arg | Thr | Val | Xaa | Xaa | Gly | Ala | Gly | Ala | Lys | Asp | Glu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

1618

Leu His Ile Val Glu Ala Glu Ala Met Asn Tyr Glu Gly Ser Pro Ile
85 90 95

Lys Val Thr Leu Ala Thr Leu Lys Met Ser Val Gln Pro Thr Val Phe
100 105 110

Pro Leu Gly Ala Leu Asn Asn Thr Thr Xaa Xaa Leu Lys Val Glu Xaa
115 120 125

Trp Phe Arg Ala Met Pro Ile Xaa Gly Gln
130 135

<210> 1550

<211> 51

<212> PRT

<213> Homo sapiens

<400> 1550

Thr Leu Ala Phe Phe Leu Ile Pro Cys Ile Gly Ser Pro Ala Cys Pro
1 5 10 15

Thr Met Ser Asp Ala Ala Val Asp Thr Ser Ser Glu Ile Thr Thr Lys
20 25 30

Asp Leu Lys Glu Lys Lys Glu Val Val Glu Glu Ala Glu Met Glu Glu
35 40 45

Thr Pro Cys
50

<210> 1551

<211> 73

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (6)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1619

<221> SITE
<222> (27)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (37)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (63)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (67)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1551
Lys Ala Xaa Ser Val Xaa Leu Tyr Lys Val Arg Leu Gln Val Pro Val
1 5 10 15
Arg Asn Ser Arg Val Asp Pro Arg Val Arg Xaa Gly Gly Glu Gln Val
20 25 30
Ser Ser Thr Ile Xaa Gly Leu Ser Gly Pro Pro Ser Arg Arg Gly Pro
35 40 45
Phe Pro Leu Ala Trp Val Ile Leu Phe Leu Leu Glu Ala Gln Xaa Gly
50 55 60
Pro Trp Xaa Leu Leu Pro Ser Ala His
65 70

<210> 1552
<211> 131
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (4)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (5)
<223> Xaa equals any of the naturally occurring L-amino acids

1620

<220>
 <221> SITE
 <222> (96)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (104)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (114)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (115)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (119)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (124)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (129)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1552
 Asn Ser Ala Xaa Xaa Glu Leu Leu Thr Gln Pro Gly Asp Trp Thr Leu
 1 5 10 15
 Phe Val Pro Thr Asn Asp Ala Phe Lys Gly Met Thr Ser Glu Glu Lys
 20 25 30
 Glu Ile Leu Ile Arg Asp Lys Asn Ala Leu Gln Asn Ile Ile Leu Tyr
 35 40 45
 His Leu His Gln Glu Phe Ser Leu Glu Lys Asp Leu Asn Leu Val Leu
 50 55 60
 Leu Thr Phe Leu Lys Thr Thr Gln Gly Ser Lys Ile Phe Leu Glu Gly
 65 70 75 80

1621

Ser Glu Met Val Thr Leu Leu Val Asn Gly Phe Gly Asn Pro Lys Xaa
 85 90 95

Ser Asp Ile His Gly Pro Pro Xaa Val Val Ile Ser Cys Cys Arg Leu
 100 105 110

Asn Xaa Xaa Phe Pro Ala Xaa Thr Pro Phe Gly Xaa Gly Ser Thr Gly
 115 120 125

Xaa Asp Thr
 130

<210> 1553

<211> 106

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (55)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (94)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (103)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1553

Trp Ile Xaa Arg Ala Ala Gly Ile Arg His Glu Val Ala Asp Thr Met
 1 5 10 15

Leu Pro Pro Met Ala Leu Pro Ser Val Ser Trp Met Leu Leu Ser Cys
 20 25 30

Leu Met Leu Leu Ser Gln Val Gln Gly Glu Glu Pro Gln Arg Glu Leu
 35 40 45

Pro Ser Ala Arg Ile Arg Xaa Pro Lys Gly Ser Lys Ala Tyr Gly Ser

1622

50 55 60
 His Cys Tyr Ala Leu Phe Leu Ser Pro Lys Ser Trp Thr Asp Ala Asp
 65 70 75 80
 Leu Ala Cys Gln Lys Arg Pro Ser Gly Asn Leu Val Ser Xaa Leu Ser
 85 90 95
 Gly Ala Glu Gly Ser Phe Xaa Pro Pro Trp
 100 105

<210> 1554

<211> 117

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (109)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1554

Ala Thr Phe Pro Arg Glu Trp Leu Cys Asp Arg His Leu Arg Glu Lys
 1 5 10 15
 Met Phe Ser Ser Val Ala His Leu Ala Arg Ala Asn Pro Phe Asn Thr
 20 25 30
 Pro His Leu Gln Leu Val His Asp Gly Leu Gly Asp Leu Arg Ser Ser
 35 40 45
 Ser Pro Gly Pro Thr Gly Gln Pro Arg Arg Pro Arg Asn Leu Ala Ala
 50 55 60
 Ala Ala Val Glu Glu Gln Tyr Ser Cys Asp Tyr Gly Ser Gly Arg Phe
 65 70 75 80
 Phe Ile Leu Cys Gly Leu Gly Gly Ile Ile Ser Cys Gly Thr Thr His
 85 90 95
 Thr Ala Leu Val Pro Leu Asp Leu Val Lys Cys Arg Xaa Arg Phe Val
 100 105 110
 Phe Ala Cys Trp Thr
 115

<210> 1555

1623

<211> 164

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (79)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (86)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (125)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1555

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Lys | Lys | Val | Glu | Arg | Gln | Thr | Glu | Leu | Lys | Arg | Lys | Phe | Glu | Gln |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Lys | Gln | Asp | Arg | Ile | Thr | Arg | Tyr | Gln | Gly | Val | Asn | Leu | Tyr | Val |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Asn | Leu | Asp | Asp | Gly | Ile | Asp | Asp | Glu | Arg | Leu | Arg | Lys | Glu | Phe |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Pro | Phe | Gly | Thr | Ile | Thr | Ser | Ala | Lys | Val | Met | Met | Glu | Gly | Gly |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Ser | Lys | Gly | Phe | Gly | Phe | Val | Cys | Phe | Ser | Ser | Pro | Glu | Xaa | Ala |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Lys | Ala | Val | Thr | Xaa | Met | Asn | Gly | Arg | Ile | Val | Ala | Thr | Lys | Pro |
| | | | 85 | | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Tyr | Val | Ala | Leu | Ala | Gln | Arg | Lys | Glu | Glu | Arg | Gln | Ala | His | Leu |
| | | 100 | | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Asn | Gln | Tyr | Met | Gln | Arg | Met | Ala | Ser | Val | Arg | Xaa | Val | Pro | Asn |
| | 115 | | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Val | Ile | Asn | Pro | Tyr | Gln | Pro | Ala | Pro | Pro | Ser | Gly | Tyr | Phe | Met |
| | 130 | | | | | | 135 | | | | 140 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Ala | Ile | Pro | Gln | Thr | Gln | Asn | Val | Leu | His | Thr | Ile | Leu | Leu | Ala |
| 145 | | | | | | 150 | | | | 155 | | | | | 160 |

Lys Leu Leu Asn

1624

<210> 1556
<211> 166
<212> PRT
<213> Homo sapiens

<220>
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1625

<222> (150)

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<220>

<221> SITE

<222> (157)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1556

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Xaa | Leu | Thr | Leu | Thr | Xaa | Gly | Xaa | Lys | Xaa | Xaa | Xaa | Xaa | Thr | Ala |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Val | Ala | Ala | Ala | Leu | Ala | Thr | Ser | Gly | Ser | Pro | Gly | Pro | Val | Arg | Asn |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Ala | Arg | Ala | Gly | Thr | Ser | Glu | Phe | Leu | Asn | Lys | Val | Thr | Glu | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gln | Glu | Asp | Gly | Gln | Ser | Thr | Ser | Glu | Leu | Ile | Gly | Gln | Phe | Gly | Val |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Gly | Phe | Tyr | Ser | Ala | Phe | Leu | Val | Ala | Asp | Lys | Val | Ile | Val | Thr | Ser |
| 65 | | | | | 70 | | | | 75 | | | | | | 80 |
| Lys | His | Asn | Asn | Asp | Thr | Gln | His | Ile | Trp | Glu | Ser | Asp | Ser | Asn | Glu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Phe | Ser | Val | Ile | Ala | Asp | Pro | Arg | Gly | Asn | Thr | Leu | Gly | Arg | Gly | Thr |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Thr | Ile | Thr | Leu | Val | Leu | Lys | Glu | Glu | Ala | Ser | Asp | Tyr | Leu | Glu | Leu |
| | 115 | | | | | | 120 | | | | | 125 | | | |
| Asp | Thr | Ile | Lys | Asn | Leu | Val | Lys | Lys | Tyr | Ser | Gln | Phe | Ile | Asn | Phe |
| 130 | | | | | 135 | | | | | | 140 | | | | |
| Pro | Ile | Tyr | Val | Trp | Xaa | Ser | Lys | Thr | Glu | Thr | Val | Xaa | Glu | Pro | Met |
| 145 | | | | 150 | | | | | 155 | | | | | 160 | |
| Glu | Glu | Glu | Gly | Ala | Ala | | | | | | | | | | |
| | | | | 165 | | | | | | | | | | | |

<210> 1557

<211> 127

<212> PRT

<213> Homo sapiens

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1626

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<222> (83)
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<223> Xaa equals any of the naturally occurring L-amino acids

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<220>
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1627

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

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<222> (106)

<223> Xaa equals any of the naturally occurring L-amino acids

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<221> SITE

<222> (107)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (108)

<223> Xaa equals any of the naturally occurring L-amino acids

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<221> SITE

<222> (113)

<223> Xaa equals any of the naturally occurring L-amino acids

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<221> SITE

<222> (117)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (120)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1557

Xaa Asn Val Val Glu Ala Gln Phe Asp Ser Arg Val Arg Ala Thr Gly
1 5 10 15

His Ser Xaa Xaa Xaa Tyr Asn Lys Trp Glu Thr Ile Glu Ala Trp Thr
20 25 30

Gln Gln Val Ala Thr Xaa Asn Pro Ala Leu Ile Ser Arg Ser Val Ile
35 40 45

Gly Thr Thr Phe Glu Gly Arg Ala Ile Tyr Leu Leu Lys Val Gly Lys
50 55 60

Ala Gly Gln Asn Lys Pro Ala Ile Phe Met Asp Cys Gly Phe Pro Met
65 70 75 80

Pro Xaa Xaa Trp Ile Ser Pro Cys Ile Xaa Pro Val Gly Phe Xaa Lys
85 90 95

1628

Xaa Ala Val Pro Phe Leu Xaa Thr Phe Xaa Xaa Xaa Leu Thr Asn Phe
 100 105 110

Xaa Asn Asn Leu Xaa Phe Tyr Xaa Pro Ala Leu Trp Pro Gln Tyr
 115 120 125

<210> 1558

<211> 109

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (80)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (101)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (107)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (108)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1558

Lys Ala Gly Ala Ala Ala Gly Gly Pro Gly Val Ser Gly Val Cys Val
 1 5 10 15

Cys Lys Ser Arg Tyr Pro Val Cys Gly Ser Asp Gly Thr Thr Tyr Pro
 20 25 30

Ser Gly Cys Gln Leu Arg Ala Ala Ser Gln Arg Ala Glu Ser Arg Gly
 35 40 45

Glu Lys Ala Ile Thr Gln Val Ser Lys Gly Thr Cys Glu Gln Gly Pro
 50 55 60

Ser Ile Val Thr Pro Pro Lys Asp Ile Trp Asn Val Thr Gly Ala Xaa
 65 70 75 80

Val Tyr Leu S r Cys Glu Val Ile Gly Ile Pro Thr Pro Val Leu Ile
 85 90 95

1629

Trp Asn Lys Val Xaa Arg Gly His Tyr Gly Xaa Xaa Arg
 100 105

<210> 1559

<211> 102

<212> PRT

<213> Homo sapiens

<400> 1559

Gly Leu Arg Gly His Leu Arg Ser Ser Gly Ser Ser Ile Trp Asn Tyr
 1 5 10 15

Ile Lys Phe Arg Lys His Val Ser Arg Tyr Asp Ser Arg Thr Thr Ile
 20 25 30

Phe Ser Pro Glu Gly Arg Leu Tyr Gln Val Glu Tyr Ala Met Glu Ala
 35 40 45

Ile Gly His Ala Gly Thr Cys Leu Gly Ile Leu Ala Asn Asp Gly Val
 50 55 60

Leu Leu Ala Ala Glu Arg Arg Asn Ile His Lys Leu Leu Asp Glu Val
 65 70 75 80

Phe Phe Ser Glu Lys Ile Tyr Lys Leu Asn Glu Asp Met Ala Cys Ser
 85 90 95

Val Ala Gly Ile Thr Phe
 100

<210> 1560

<211> 159

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (146)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1560

Ser Thr His Ala Ser Ala Ala His Pro Ser Thr Leu Thr His Pro Gln
 1 5 10 15

Arg Arg Ile Asp Thr Leu Asn Ser Asp Gly Tyr Thr Pro Glu Pro Asp
 20 25 30

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Lys | Pro | Arg | Pro | Met | Pro | Met | Asp | Thr | Ser | Val | Tyr | Glu | Ser | Pro | Tyr | |
| 35 | | | | | | 40 | | | | | | 45 | | | | |
| Ser | Asp | Pro | Glu | Glu | Leu | Lys | Asp | Lys | Lys | Leu | Phe | Leu | Lys | Arg | Asp | |
| 50 | | | | | | 55 | | | | | | 60 | | | | |
| Asn | Leu | Leu | Ile | Ala | Asp | Ile | Glu | Leu | Gly | Cys | Gly | Asn | Phe | Gly | Ser | |
| 65 | | | | | | 70 | | | | | | 80 | | | | |
| Val | Arg | Gln | Gly | Val | Tyr | Arg | Met | Arg | Lys | Lys | Gln | Ile | Asp | Val | Ala | |
| | | | 85 | | | | | | 90 | | | | | | 95 | |
| Ile | Lys | Val | Leu | Lys | Gln | Gly | Thr | Glu | Lys | Ala | Asp | Thr | Glu | Glu | Met | |
| | | | 100 | | | | | | 105 | | | | | | 110 | |
| Met | Arg | Glu | Ala | Gln | Ile | Met | His | Gln | Leu | Asp | Asn | Pro | Tyr | Ile | Val | |
| 115 | | | | | | 120 | | | | | | 125 | | | | |
| Arg | Leu | Ile | Gly | Val | Cys | Gln | Ala | Glu | Ala | Leu | Met | Leu | Val | Met | Glu | |
| 130 | | | | | | 135 | | | | | | 140 | | | | |
| Met | Xaa | Gly | Ala | Gly | Ala | Ala | Gln | Val | Pro | Gly | Arg | Gln | Glu | Gly | | |
| 145 | | | | | | 150 | | | | | | 155 | | | | |

<213> Homo sapiens

<223> Xaa equals any of the naturally occurring L-amino acids

<223> Xaa equals any of the naturally occurring L-amino acids

Ser Ser Gly Ile Glu Asn Gly Ala Phe Gln Gly Met Lys Lys Leu Ser
35 40 45

1631

Tyr Ile Arg Ile Ala Asp Thr Asn Ile Thr Ser Ile Pro Gln Gly Leu
 50 55 60
 Pro Pro Ser Leu Thr Glu Leu His Leu Asp Gly Asn Lys Ile Ser Arg
 65 70 75 80
 Val Asp Ala Ala Ser Leu Lys Gly Leu Asn Asn Leu Ala Lys Leu Gly
 85 90 95
 Leu Ser Phe Asn Ser Ile Ser Ala Val Asp Asn Gly Ser Leu Ala Asn
 100 105 110
 Thr Pro His Leu Arg Glu Leu His Leu Asp Asn Asn Lys Leu Thr Arg
 115 120 125
 Val Pro Gly Gly Leu Gln Ser Ile Lys Tyr Xaa Xaa Gly Gly Tyr Leu
 130 135 140
 His Asn Asn His Ile Ser Val Val Gly Ser Lys
 145 150 155

<210> 1562

<211> 72

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1562

Xaa Asn Gln Asn Ser Asn Gly Leu Val Phe Leu Leu Trp Gly Ser Tyr
 1 5 10 15
 Ala Gln Lys Lys Gly Ser Ala Ile Asp Arg Lys Arg His His Val Leu
 20 25 30
 Gln Thr Ala His Pro Ser Pro Leu Ser Val Tyr Arg Gly Phe Phe Gly
 35 40 45
 Cys Arg His Phe Ser Lys Thr Asn Glu Leu Leu Gln Lys Ser Gly Lys
 50 55 60
 Lys Pro Ile Asp Trp Lys Glu Leu
 65 70

1632

<210> 1563

<211> 110

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (74)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (104)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1563

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Thr | Arg | Gly | Arg | Leu | Leu | Gly | His | Leu | Lys | Glu | Thr | Trp | Gly | His |
| 1 | | | | | 5 | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Arg | Arg | Ala | Ser | Trp | Val | Val | Arg | Ser | Arg | Arg | Cys | Arg | His | Cys |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Cys | Phe | Met | Arg | Lys | Met | Leu | Ala | Ala | Val | Ser | Arg | Val | Leu | Ser |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Ala | Ser | Gln | Lys | Pro | Ala | Ser | Arg | Val | Leu | Val | Ala | Ser | Arg | Asn |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Ala | Asn | Asp | Ala | Thr | Phe | Glu | Ile | Xaa | Lys | Cys | Asp | Leu | His | Arg |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Glu | Glu | Ala | Leu | Leu | Ser | Gln | Gln | Cys | Ser | Pro | Arg | Glu | Asp | Gly |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| Leu | Lys | Tyr | Tyr | Arg | Met | Met | Xaa | Thr | Val | Pro | Glu | Trp | Asn | | |
| | | | | 100 | | | | 105 | | | | | 110 | | |

<210> 1564

<211> 95

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (4)

<223> xaa equals any of the naturally occurring L-amino acids

<220>

1633

<221> SITE
<222> (38)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
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<222> (47)
<223> Xaa equals any of the naturally occurring L-amino acids

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<222> (51)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
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<222> (61)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
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<223> Xaa equals any of the naturally occurring L-amino acids

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<223> Xaa equals any of the naturally occurring L-amino acids

<220>
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<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (94)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1564
Leu His Ser Xaa Cys Thr Arg Arg Gly Ser Gly Ser Leu Arg Leu Cys
1 5 10 15
Ser Val Ala Arg Val Gly Gln Arg Arg Met Thr Ser Ala Ala Met Ser
20 25 30
Lys Pro His Ser Glu Xaa Gly Thr Ala Phe Ile Gln Thr Gln Xaa Leu
35 40 45
His Ala Xaa Met Ala Asp Thr Phe Leu Glu His Met Xaa Arg Leu Asp
50 55 60

1634

Ile Asp Ser Pro Pro Xaa Thr Gly Arg Asn Thr Gly Ile Ile Cys Thr
 65 70 75 80

Ile Gly Pro Ala Ser Arg Ser Xaa Gly Asp Gly Xaa Gly Xaa Asp
 85 90 95

<210> 1565

<211> 50

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (29)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (37)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (42)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (49)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1565

Pro Thr Met Ala Ala Ile Arg Lys Lys Leu Val Ile Val Gly Asp Gly
 1 5 10 15

Ala Cys Gly Lys Thr Cys Leu Leu Ile Val Phe Ser Xaa Asp Gln Phe
 20 25 30

Pro Glu Val Tyr Xaa Pro Thr Val Leu Xaa Glu Leu Tyr Cys Ala His
 35 40 45

Xaa Gly
 50

<210> 1566

<211> 161

1635

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (155)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1566

Ala Ala Met Phe Asn Ile Arg Asn Ile Gly Lys Thr Leu Val Thr Arg
 1 5 10 15

Thr Gln Gly Thr Lys Ile Ala Ser Asp Gly Leu Lys Gly Arg Val Phe
 20 25 30

Glu Val Ser Leu Ala Asp Leu Gln Asn Asp Glu Val Ala Phe Arg Lys
 35 40 45

Phe Lys Leu Ile Thr Glu Asp Val Gln Gly Lys Asn Cys Leu Thr Asn
 50 55 60

Phe His Gly Met Asp Leu Thr Arg Asp Lys Met Cys Ser Met Val Lys
 65 70 75 80

Lys Trp Gln Thr Met Ile Glu Ala His Val Asp Val Lys Thr Thr Asp
 85 90 95

Gly Tyr Leu Leu Arg Leu Phe Cys Val Gly Phe Thr Lys Lys Arg Asn
 100 105 110

Asn Gln Ile Arg Lys Thr Ser Tyr Ala Gln His Gln Gln Val Arg Gln
 115 120 125

Ile Arg Lys Lys Met Met Glu Ile Met Thr Arg Glu Val Gln Thr Asn
 130 135 140

Asp Leu Lys Glu Val Val Asn Lys Leu Ile Xaa Asp Ala Leu Glu Lys
 145 150 155 160

Thr

<210> 1567

<211> 113

<212> PRT

<213> Homo sapiens

<400> 1567

Pro Ser Leu Lys Gly Thr Lys Ala Gly Ala Pro Pro Arg Cys Gly Arg

1636

| | | | |
|---|---|-----|-----|
| 1 | 5 | 10 | 15 |
| Ser Arg Thr | Ser Gly Ser Pro Gly Leu Gln Glu Phe Gly Thr Ser Pro | | |
| | 20 | 25 | 30 |
| Gly Pro Arg Gln Ser Pro Ala Arg Leu Val Ala Met Pro Arg Lys Ile | | | |
| | 35 | 40 | 45 |
| Glu Glu Ile Lys Asp Phe Leu Leu Thr Ala Arg Arg Lys Asp Ala Lys | | | |
| | 50 | 55 | 60 |
| Ser Val Lys Ile Lys Lys Asn Lys Asp Asn Val Lys Phe Lys Val Arg | | | |
| | 65 | 70 | 75 |
| Cys Ser Arg Tyr Leu Tyr Thr Leu Val Ile Thr Asp Lys Glu Lys Ala | | | |
| | 85 | 90 | 95 |
| Glu Lys Leu Lys Gln Ser Leu Pro Pro Gly Leu Ala Val Lys Glu Leu | | | |
| | 100 | 105 | 110 |

Lys

<210> 1568

<211> 48

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (8)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (24)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (33)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1568

| |
|---|
| Gly Cys Asn Tyr Gly Lys Pro Xaa His His Gly Val Asn Gln Leu Lys |
| 1 5 10 15 |

| |
|---|
| Phe Ala Arg Ser Leu Gln Ser Xaa Ala Glu Glu Arg Ala Gly Arg His |
| 20 25 30 |

1637

Xaa Gly Ala Leu Arg Val Leu Asn Ser Tyr Trp Val Gly Glu Asp Ser
 35 40 45

<210> 1569
 <211> 120
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (6)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (103)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (106)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1569
 Gly Thr Ser Glu Arg Xaa Glu His Ala Met Lys Ala Ser Gly Thr Leu
 1 5 10 15
 Arg Glu Tyr Lys Val Val Gly Arg Cys Leu Pro Thr Pro Lys Cys His
 20 25 30
 Thr Pro Pro Leu Tyr Arg Met Arg Ile Phe Ala Pro Asn His Val Val
 35 40 45
 Ala Lys Ser Arg Phe Trp Tyr Phe Val Ser Gln Leu Lys Lys Met Lys
 50 55 60
 Lys Ser Ser Gly Glu Ile Val Tyr Cys Gly Gln Val Phe Glu Lys Ser
 65 70 75 80
 Pro Leu Arg Val Lys Asn Phe Gly Ile Trp Leu Arg Tyr Asp Ser Arg
 85 90 95
 Ser Gly Thr His Asn Met Xaa Arg Glu Xaa Arg Asp Leu Thr Asn Ala
 100 105 110

1638

Gly Ala Val Asn Gln Cys Asn Gly
115 120

<210> 1570

<211> 85

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (61)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (78)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1570

Cys Pro Pro Leu Trp Gln Glu Glu Val Trp Leu Asp Pro Asn Glu Thr
1 5 10 15

Asn Glu Ile Ala Asn Ala Asn Ser Arg Gln Gln Ile Arg Lys Leu Ile
20 25 30

Lys Asp Gly Leu Ile Ile Arg Lys Pro Val Thr Val His Ser Arg Ala
35 40 45

Arg Cys Arg Lys Asn Thr Leu Ala Arg Arg Lys Gly Xaa His Met Gly
50 55 60

Ile Val Ser Gly Lys Val Gln Pro Met Pro Glu Cys Gln Xaa Arg Ser
65 70 75 80

His Gly Leu Arg Lys
85

<210> 1571

<211> 135

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (134)

<223> Xaa equals any of the naturally occurring L-amino acids

1639

<400> 1571

Phe Ala Lys Met Thr Asn Thr Lys Gly Lys Arg Arg Gly Thr Arg Tyr
1 5 10 15

Met Phe Ser Arg Pro Phe Arg Lys His Gly Val Val Pro Leu Ala Thr
20 25 30

Tyr Met Arg Ile Tyr Lys Lys Gly Asp Ile Val Asp Ile Lys Gly Met
35 40 45

Gly Thr Val Gln Lys Gly Met Pro His Lys Cys Tyr His Gly Lys Thr
50 55 60

Gly Arg Val Tyr Asn Val Thr Gln His Ala Val Gly Ile Val Val Asn
65 70 75 80

Lys Gln Val Lys Gly Lys Ile Leu Ala Lys Arg Ile Asn Val Arg Ile
85 90 95

Glu His Ile Lys His Ser Lys Ser Arg Asp Ser Phe Leu Lys Arg Val
100 105 110

Lys Glu Asn Asp Gln Lys Lys Lys Glu Ala Lys Glu Lys Gly Thr Trp
115 120 125

Val Gln Leu Lys Arg Xaa Pro
130 135

<210> 1572

<211> 71

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (7)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (8)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (13)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1640

<221> SITE
<222> (16)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (23)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (27)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (30)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (37)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (42)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (58)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (65)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (69)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1572
Thr Ala Thr Pro Ala Asn Xaa Xaa Leu Pro Trp Gly Xaa Lys Lys Xaa
1 5 10 15

Ala Arg Arg Ser Lys Ile Xaa Ser Phe Val Xaa Val Cys Xaa Tyr Asn
20 25 30

1641

His Leu Met Pro Xaa Arg Tyr Ser Val Xaa Tyr Ser Pro Trp Gly Lys
 35 40 45

Ala Val Arg Ser Leu Gly Cys Leu Pro Xaa Phe Leu Ala Leu Lys Arg
 50 55 60

Xaa Ala Arg Arg Xaa Pro Arg
 65 70

<210> 1573

<211> 68

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (59)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (62)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (67)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1573

Ala Ala Ala Lys Gly Ala Ala Ala Met Ser Ala His Leu Gln Trp Met
 1 5 10 15

Val Val Arg Asn Cys Ser Ser Phe Leu Ile Lys Arg Asn Lys Gln Thr
 20 25 30

Tyr Ser Thr Glu Pro Asn Asn Leu Lys Ala Arg Asn Ser Phe Arg Tyr
 35 40 45

Asn Gly Leu Ile His Arg Lys Thr Val Gly Xaa Glu Pro Xaa Ala Asp
 50 55 60

Gly Lys Xaa Val
 65

<210> 1574

<211> 127

1642

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1574

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Arg | Met | Xaa | Pro | Ala | Lys | Lys | Gly | Gly | Glu | Lys | Lys | Lys | Gly | Arg |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ala | Ile | Asn | Glu | Val | Val | Thr | Arg | Glu | Tyr | Thr | Ile | Asn | Ile | His |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Arg | Ile | His | Gly | Val | Gly | Phe | Lys | Lys | Arg | Ala | Pro | Arg | Ala | Leu |
| | | | 35 | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Glu | Ile | Arg | Lys | Phe | Ala | Met | Lys | Glu | Met | Gly | Thr | Pro | Asp | Val |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Ile | Asp | Thr | Arg | Leu | Asn | Lys | Ala | Val | Trp | Ala | Lys | Gly | Ile | Arg |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Val | Pro | Tyr | Arg | Ile | Arg | Val | Arg | Leu | Ser | Arg | Lys | Arg | Asn | Glu |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Glu | Asp | Ser | Pro | Asn | Lys | Leu | Tyr | Thr | Leu | Val | Thr | Tyr | Val | Pro |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Val | Thr | Thr | Phe | Lys | Asn | Leu | Gln | Thr | Val | Asn | Val | Asp | Glu | Asn | |
| | | | 115 | | | | 120 | | | | | 125 | | | |

<210> 1575

<211> 115

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (11)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (12)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1643

<221> SITE

<222> (18)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (29)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (40)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (49)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (65)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (82)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (97)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1575

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Trp | Phe | Pro | Arg | Ala | Ala | Gly | Phe | Arg | His | Xaa | Xaa | Val | Gln | Ile | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Xaa | Glu | Arg | Lys | Gly | Thr | Ser | Ser | Phe | Gly | Lys | Xaa | Arg | Asn | Lys |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | His | Thr | Leu | Cys | Arg | Arg | Xaa | Gly | Ser | Lys | Ala | Tyr | His | Leu | Gln |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Ser | Thr | Cys | Gly | Lys | Phe | Gly | Tyr | Pro | Ala | Lys | Arg | Lys | Arg | Lys |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Asn | Trp | Ser | Ala | Lys | Ala | Lys | Arg | Arg | Asn | Thr | Thr | Gly | Thr | Gly |
| | 65 | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Xaa | Arg | His | Leu | Lys | Phe | Val | Tyr | Arg | Arg | Phe | Arg | His | Gly | Phe |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

1644

| | | | |
|---|-----|-----|-----|
| | 85 | 90 | 95 |
| Xaa Glu Gly Thr Thr Pro Lys Pro Lys Arg Ala Ala Val Ala Ala Ser | | | |
| | 100 | 105 | 110 |
| Ser Ser Ser | | | |
| | 115 | | |

<210> 1576
 <211> 121
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (108)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (114)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (116)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1576
 Gly Arg Arg Ser Glu Met Thr Lys Gly Thr Ser Ser Phe Gly Lys Arg
 1 5 10 15
 Arg Asn Lys Thr His Thr Leu Cys Arg Arg Cys Gly Ser Lys Ala Tyr
 20 25 30
 His Leu Gln Lys Ser Thr Cys Gly Lys Cys Gly Tyr Pro Ala Lys Arg
 35 40 45
 Lys Arg Lys Tyr Asn Trp Ser Ala Lys Ala Lys Arg Arg Asn Thr Thr
 50 55 60
 Gly Thr Gly Arg Met Arg His Leu Lys Ile Val Tyr Arg Arg Phe Arg
 65 70 75 80
 His Gly Phe Arg Glu Gly Thr Thr Pro Lys Pro Lys Arg Ala Ala Val
 85 90 95
 Ala Ala Phe Gln Phe Ile Phe Lys Asn Val Asn Xaa Phe Ser His Ala
 100 105 110

1645

Ile Xaa Cys Xaa Gly Val Leu Lys Asn
 115 120

<210> 1577

<211> 61

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (57)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (59)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (61)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1577

Gly Ile Val Gly Lys Tyr Gly Thr Arg Tyr Gly Ala Ser Leu Arg Lys
 1 5 10 15

Met Val Lys Lys Ile Glu Ile Ser Gln His Ala Lys Tyr Thr Cys Ser
 20 25 30

Phe Cys Gly Lys Thr Lys Met Lys Arg Arg Ala Val Gly Ile Trp His
 35 40 45

Cys Gly Ser Cys Met Lys Thr Val Xaa Gly Xaa Ala Xaa
 50 55 60

<210> 1578

<211> 74

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (42)

<223> Xaa equals any of the naturally occurring L-amino acids

1646

<220>

<221> SITE

<222> (44)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (51)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (63)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (67)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (74)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1578

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Leu | Gly | Lys | Gly | Lys | Met | Glu | Lys | Pro | Ser | Pro | Tyr | Pro | Ala | Gln |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Pro | Cys | Ile | Ile | Tyr | Asn | Glu | Asp | Asn | Gly | Ile | Ile | Lys | Ala | Phe |
| | | | 20 | | | | | | 25 | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Lys | His | Pro | Trp | Asn | Tyr | Ser | Ala | Xaa | Met | Xaa | Ser | Lys | Leu | Lys |
| | | | 35 | | | | | 40 | | | | | 45 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Phe | Xaa | Ser | Leu | Leu | Pro | Gly | Gly | Ala | Cys | Gly | Asp | Val | Xaa | Gly |
| | 50 | | | | | | 55 | | | | | 60 | | | |

| | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Gly | Xaa | Glu | Met | Ala | Phe | Pro | Gly | Xaa |
| 65 | | | | | | | | 70 | |

<210> 1579

<211> 98

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (2)

1647

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (81)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (87)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (91)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1579

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Xaa | Met | Ala | Cys | Ala | Arg | Pro | Leu | Ile | Ser | Val | Tyr | Ser | Glu | Lys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Glu | Ser | Ser | Gly | Lys | Asn | Val | Thr | Leu | Pro | Ala | Val | Phe | Lys | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Ile | Arg | Pro | Asp | Ile | Val | Asn | Phe | Val | His | Thr | Asn | Leu | Arg | Lys |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Asn | Arg | Gln | Pro | Tyr | Ala | Val | Ser | Glu | Leu | Ala | Gly | His | Gln | Thr |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ala | Glu | Ser | Trp | Gly | Thr | Gly | Arg | Ala | Val | Ala | Arg | Ile | Pro | Arg |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Arg | Gly | Gly | Gly | Thr | Xaa | Arg | Ser | Gly | Xaa | Gly | Ala | Phe | Gly | Asn |
| | | | 85 | | | | | | 90 | | | | | 95 | |

Met Cys

<210> 1580

<211> 72

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

1648

<220>
<221> SITE
<222> (19)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (50)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (55)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (64)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (71)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (72)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1580
Leu Ser Leu Xaa Gly Lys Lys Lys Lys Arg Leu Arg Val Asp Lys Trp
1 5 10 15
Trp Gly Xaa Arg Lys Glu Leu Ala Thr Val Arg Thr Ile Cys Ser His
20 25 30
Val Gln Asn Met Ile Lys Gly Val Thr Leu Gly Phe Arg Tyr Lys Met
35 40 45
Arg Xaa Val Tyr Ala His Xaa Pro Ile Asn Val Val Ile Gln Glu Xaa
50 55 60
Gly Ser Ile Val Glu Ile Xaa Xaa
65 70

<210> 1581
<211> 153
<212> PRT

1649

<213> Homo sapiens

<400> 1581

Ala Ile Met Gly Arg Met His Ala Pro Gly Lys Gly Leu Ser Gln Ser
 1 5 10 15

Ala Leu Pro Tyr Arg Arg Ser Val Pro Thr Trp Leu Lys Leu Thr Ser
 20 25 30

Asp Asp Val Lys Glu Gln Ile Tyr Lys Leu Ala Lys Lys Gly Leu Thr
 35 40 45

Pro Ser Gln Ile Gly Val Ile Leu Arg Asp Ser His Gly Val Ala Gln
 50 55 60

Val Arg Phe Val Thr Gly Asn Lys Ile Leu Arg Ile Leu Lys Ser Lys
 65 70 75 80

Gly Leu Ala Pro Asp Leu Pro Glu Asp Leu Tyr His Leu Ile Lys Lys
 85 90 95

Ala Val Ala Val Arg Lys His Leu Glu Arg Asn Arg Lys Asp Lys Asp
 100 105 110

Ala Lys Phe Arg Leu Ile Leu Ile Glu Ser Arg Ile His Arg Leu Ala
 115 120 125

Arg Tyr Tyr Lys Thr Lys Arg Val Leu Pro Pro Asn Trp Lys Tyr Glu
 130 135 140

Ser Ser Thr Ala Ser Ala Leu Val Ala
 145 150

<210> 1582

<211> 129

<212> PRT

<213> Homo sapiens

<400> 1582

Gly Pro Ala Asn Met Gly Arg Val Arg Thr Lys Thr Val Lys Lys Ala
 1 5 10 15

Ala Arg Val Ile Ile Glu Lys Tyr Tyr Thr Arg Leu Gly Asn Asp Phe
 20 25 30

His Thr Asn Lys Arg Val Cys Glu Glu Ile Ala Ile Ile Pro Ser Lys
 35 40 45

Lys Leu Arg Asn Lys Ile Ala Gly Tyr Val Thr His Leu Met Lys Arg

1650

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 50 | | 55 | | 60 | | | | | | | | | | | |
| Ile | Gln | Arg | Gly | Pro | Val | Arg | Gly | Ile | Ser | Ile | Lys | Leu | Gln | Glu | Glu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Glu | Arg | Glu | Arg | Arg | Asp | Asn | Tyr | Val | Pro | Glu | Val | Ser | Ala | Leu | Asp |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Gln | Glu | Ile | Ile | Glu | Val | Asp | Pro | Asp | Thr | Lys | Glu | Met | Leu | Lys | Leu |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Leu | Asp | Phe | Gly | Ser | Leu | Ser | Asn | Leu | Gln | Ser | Leu | Ser | Leu | Gln | Leu |
| | 115 | | | | | | 120 | | | | | 125 | | | |

Gly

<210> 1583
 <211> 109
 <212> PRT
 <213> Homo sapiens

<400> 1583
 Asn Asn Gly Arg Ala Lys Lys Gly Arg Gly His Val Gln Pro Ile Arg
 1 5 10 15
 Cys Thr Asn Cys Ala Arg Cys Val Pro Lys Asp Lys Ala Ile Lys Lys
 20 25 30
 Phe Val Ile Arg Asn Ile Val Glu Ala Ala Ala Val Arg Asp Ile Ser
 35 40 45
 Glu Ala Ser Val Phe Asp Ala Tyr Val Leu Pro Lys Leu Tyr Val Lys
 50 55 60
 Leu His Tyr Cys Val Thr Val Pro Ser Ile Ala Arg Leu Leu Gly Ile
 65 70 75 80
 Asp Pro Ala Lys Pro Gly Arg Thr Glu His Pro His His Asp Ser Asp
 85 90 95
 Leu Leu Ala Leu His Leu Arg Pro Pro Pro Lys Pro Met
 100 105

<210> 1584
 <211> 119
 <212> PRT

1651

<213> Homo sapiens

<220>

<221> SITE

<222> (60)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (99)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (118)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1584

Val Gln Arg Phe Ile Lys Ile Asp Gly Lys Val Arg Thr Asp Ile Thr
1 5 10 15

Tyr Pro Ala Gly Phe Met Asp Val Ile Ser Ile Asp Lys Thr Gly Glu
20 25 30

Asn Phe Arg Leu Ile Tyr Asp Thr Lys Gly Arg Phe Ala Val His Arg
35 40 45

Ile Thr Pro Glu Glu Ala Lys Tyr Lys Leu Cys Xaa Val Arg Lys Ile
50 55 60

Phe Val Gly Thr Lys Gly Ile Pro His Leu Val Thr His Asp Ala Arg
65 70 75 80

Thr Ile Arg Tyr Pro Asp Pro Leu Ile Lys Val Asn Asp Pro Phe Ile
85 90 95

Leu Ile Xaa Arg Leu Ala Arg Leu Leu Ile Ser Ser Ile Ser Thr Leu
100 105 110

Val Thr Cys Val Trp Xaa Leu
115

<210> 1585

<211> 81

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

1652

<222> (14)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (26)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (41)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (53)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (67)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (72)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (74)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <400> 1585
 Gly Arg Tyr Ala Ala Lys Arg Phe Arg Lys Ala Gln Cys Xaa Ile Val
 1 5 10 15

 Glu Arg Leu Thr Asn Ser Met Met Met Xaa Gly Arg Asn Asn Gly Lys
 20 25 30

 Lys Leu Met Thr Val Arg Ile Val Xaa His Ala Phe Glu Ile Ile Arg
 35 40 45

 Leu Leu Thr Gly Xaa Glu Pro Ser Ala Gly Pro Gly Glu Arg His His
 50 55 60

 Gln His Xaa Ser Pro Gly Arg Xaa His Xaa His Trp Ala Arg Arg Asp
 65 70 75 80

 Cys

1653

<210> 1586
 <211> 111
 <212> PRT
 <213> Homo sapiens

<400> 1586
 Lys Asn Cys Ile Val Leu Ile Asp Ser Thr Pro Tyr Arg Gln Trp Tyr
 1 5 10 15
 Glu Ser His Tyr Ala Leu Pro Leu Gly Arg Lys Lys Gly Ala Lys Leu
 20 25 30
 Thr Pro Glu Glu Glu Glu Ile Leu Asn Lys Lys Arg Ser Lys Lys Ile
 35 40 45
 Gln Lys Lys Tyr Asp Glu Arg Lys Lys Asn Ala Lys Ile Ser Ser Leu
 50 55 60
 Leu Glu Glu Gln Phe Gln Gln Gly Lys Leu Leu Ala Cys Ile Ala Ser
 65 70 75 80
 Arg Pro Gly Gln Cys Gly Arg Ala Asp Gly Tyr Val Leu Glu Gly Lys
 85 90 95
 Glu Leu Glu Phe Tyr Leu Arg Lys Ile Lys Ala Arg Lys Gly Lys
 100 105 110

<210> 1587
 <211> 125
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (105)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (117)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1587
 Arg Thr Met Pro Gly Val Thr Val Lys Asp Val Asn Gln Gln Glu Phe
 1 5 10 15

1654

Val Arg Ala Leu Ala Ala Phe Leu Lys Lys Ser Gly Lys Leu Lys Val
20 25 30

Pro Glu Trp Val Asp Thr Val Lys Leu Ala Lys His Lys Glu Leu Ala
35 40 45

Pro Tyr Asp Glu Asn Trp Phe Tyr Thr Arg Ala Ala Ser Thr Ala Arg
50 55 60

His Leu Tyr Leu Arg Gly Gly Ala Gly Val Gly Ser Met Thr Lys Ile
65 70 75 80

Tyr Gly Gly Arg Gln Arg Asn Gly Val Met Pro Ser His Phe Ser Arg
85 90 95

Gly Ser Lys Ser Val Ala Arg Arg Xaa Leu Gln Ala Leu Gly Gly Ala
100 105 110

Glu Asn Gly Gly Xaa Gly Pro Arg Trp Arg Pro Ala Asn
115 120 125

<210> 1588

<211> 38

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (8)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (19)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (29)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (33)

1655

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (35)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1588

Cys Met Leu Xaa Leu Val Leu Xaa Leu Leu Ser Ser Ser Ser Ala Glu
1 5 10 15

Glu Tyr Xaa Gly Leu Ser Ala Asn Gln Cys Ala Val Xaa Ala Lys Asp
20 25 30

Xaa Val Xaa Cys Gly Tyr
35

<210> 1589

<211> 55

<212> PRT

<213> Homo sapiens

<400> 1589

Gly Thr Ala Thr Gln Gly Leu Ser Pro Val His Thr Pro Gly Asp Gly
1 5 10 15

Arg Leu His Lys Ala Val Ser Val Gly Pro Arg Val His Ile Ile Glu
20 25 30

Glu Leu Gln Ile Phe Ser Ser Gly Gln Pro Val Ala Glu Ser Ala Pro
35 40 45

Gly Thr Pro Thr Gly Gly Leu
50 55

<210> 1590

<211> 92

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (15)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1590

Leu Glu Asp Gly Phe Gly Glu His Pro Phe Tyr His Cys Leu Xaa Ala

1656

| 1 | 5 | 10 | 15 |
|---|----|----|----|
| Glu Val Pro Lys Glu His Trp Thr Pro Glu Gly His Ser Ile Val Gly | 20 | 25 | 30 |
| Phe Ala Met Tyr Tyr Phe Thr Tyr Asp Pro Trp Ile Gly Lys Leu Leu | 35 | 40 | 45 |
| Tyr Leu Glu Asp Phe Phe Val Met Ser Asp Tyr Arg Gly Phe Gly Ile | 50 | 55 | 60 |
| Gly Ser Glu Ile Leu Lys Asn Leu Ser Gln Val Ala Met Arg Cys Arg | 65 | 70 | 75 |
| Cys Ser Ser Met His Phe Phe Gly Ser Arg Met Glu | 85 | 90 | |

<210> 1591

<211> 139

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (5)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (8)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (10)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (56)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

1657

<222> (114)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (117)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (125)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (133)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1591

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Gly | Gly | Phe | Xaa | Ile | Thr | Xaa | Gly | Xaa | Asp | Glu | Gly | Lys | Leu | Val |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Pro | Ala | Gly | Asp | Arg | Ser | Gly | Ile | Pro | Gly | Ser | Thr | His | Ala | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Arg | Asp | Val | Ser | Gln | Lys | Val | Leu | Arg | Ser | Gln | Thr | Trp | Val | Pro |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Leu | Pro | Ala | Ser | Glu | Ala | Xaa | Ser | Arg | His | Arg | Gly | Lys | Val | Lys |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Phe | Pro | Lys | Asp | Asp | Pro | Ser | Lys | Pro | Val | His | Leu | Thr | Ala | Phe |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Gly | Tyr | Lys | Ala | Gly | Met | Thr | His | Ile | Val | Arg | Glu | Val | Asp | Arg |
| | | | 85 | | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Gly | Ser | Lys | Val | Asn | Lys | Lys | Glu | Gly | Gly | Gly | Gly | Cys | Asp | His |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Xaa | Asp | Thr | Xaa | His | Gly | Gly | Leu | Trp | Ala | Leu | Xaa | Ala | Thr | Leu |
| | | 115 | | | | | | 120 | | | | 125 | | | |

| | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Asn | Pro | Arg | Xaa | Leu | Arg | Asn | Phe | Lys | Asn |
| | 130 | | | | | | 135 | | | |

<210> 1592

<211> 42

<212> PRT

1658

<213> Homo sapiens

<400> 1592

Ala Glu His Gly Asp Gln Asp Tyr Ile Trp His Cys Ile Asp Leu Phe
1 5 10 15

Leu Asp Phe Ile Thr Val Phe Arg Lys Leu Met Met Ile Leu Ala Met
20 25 30

Asn Glu Lys Asp Lys Lys Lys Glu Lys Lys
35 40

<210> 1593

<211> 85

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (25)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (31)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (33)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (47)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (56)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

1659

<222> (60)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (62)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (79)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1593

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Trp | Ile | Pro | Arg | Ala | Ala | Gly | Ser | Leu | Ser | Leu | Ala | Gln | Arg | Arg | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Thr | Lys | Thr | Tyr | Thr | Val | Gly | Xaa | Glu | Glu | Cys | Thr | Val | Xaa | Pro |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Leu | Ser | Ile | Pro | Cys | Lys | Leu | Gln | Ser | Gly | Thr | His | Cys | Xaa | Trp |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Asp | Gln | Leu | Leu | Gln | Gly | Xaa | Glu | Lys | Gly | Xaa | Gln | Xaa | Arg | His |
| | 50 | | | | | 55 | | | | | | 60 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Ala | Cys | Leu | Pro | Arg | Glu | Pro | Gly | Leu | Gly | Thr | Trp | Gln | Xaa | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | |
|-----|-----|-----|-----|-----|
| Arg | Ser | Gln | Ile | Ala |
| | | | | 85 |

<210> 1594

<211> 183

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (80)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (107)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

1660

<222> (122)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (136)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (151)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (152)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (160)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1594

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Ala | Arg | Gly | Ala | Gln | Arg | Asp | Thr | Arg | Glu | Pro | Thr | Met | Ala | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Glu | Pro | Leu | Ala | Ser | Gly | Ile | Leu | Leu | Leu | Leu | Trp | Leu | Ile | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Ser | Arg | Ala | Cys | Thr | Cys | Val | Pro | Pro | His | Pro | Gln | Thr | Ala | Phe |
| | | | 35 | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Asn | Ser | Asp | Leu | Val | Ile | Arg | Ala | Lys | Phe | Val | Gly | Thr | Pro | Glu |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Asn | Gln | Thr | Thr | Leu | Tyr | Gln | Arg | Tyr | Glu | Ile | Lys | Met | Thr | Xaa |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Tyr | Lys | Gly | Phe | Gln | Ala | Leu | Gly | Asp | Ala | Ala | Asp | Ile | Arg | Phe |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Tyr | Thr | Pro | Ala | Met | Glu | Ser | Val | Cys | Xaa | Tyr | Phe | His | Arg | Ser |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Asn | Arg | Ser | Glu | Glu | Phe | Leu | Ile | Xaa | Gly | Lys | Leu | Gln | Asp | Gly |
| | 115 | | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Leu | His | Ile | Thr | Thr | Cys | Xaa | Phe | Val | Ala | Pro | Trp | Asn | Ser | Leu |
| | 130 | | | | | 135 | | | | | 140 | | | | |

1661

Ser Leu Ala Gln Arg Arg Xaa Xaa Thr Lys Thr Tyr Thr Val Gly Xaa
 145 150 155 160

Glu Glu Met His Lys Cys Phe Pro Val Tyr Pro Ser Pro Ala Asn Cys
 165 170 175

Arg Val Gly Thr His Cys Leu
 180

<210> 1595

<211> 153

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (143)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (151)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1595

Ser Thr Cys Pro Asp Glu Gln Cys Val Asn Ser Pro Gly Ser Tyr Gln
 1 5 10 15

Cys Val Pro Cys Thr Glu Gly Phe Arg Gly Trp Asn Gly Gln Cys Leu
 20 25 30

Asp Val Asp Glu Cys Leu Glu Pro Asn Val Cys Ala Asn Gly Asp Cys
 35 40 45

Ser Asn Leu Glu Gly Ser Tyr Met Cys Ser Cys His Lys Gly Tyr Thr
 50 55 60

Arg Thr Pro Asp His Lys His Cys Arg Asp Ile Asp Glu Cys Gln Gln
 65 70 75 80

Gly Asn Leu Cys Val Asn Gly Gln Cys Lys Asn Thr Glu Gly Ser Phe
 85 90 95

Arg Cys Thr Val Asp Arg Gly Tyr Gln Leu Ser Ala Ala Lys Asp Gln
 100 105 110

Phe Glu Asp Ile Asp Glu Cys His Thr Val Ile Ser Val Ala His Gly
 115 120 125

1662

His Ala Arg Thr Leu Lys Leu Phe Ser Met Cys Phe Leu Thr Xaa Val
 130 135 140

Thr Glu His Leu Gly Leu Xaa Thr Leu
 145 150

<210> 1596

<211> 111

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (102)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1596

Leu Gly Ser Ser Ala Met Ala Pro Ser Arg Lys Phe Phe Val Gly Gly
 1 5 10 15

Asn Trp Lys Met Asn Gly Arg Lys Gln Ser Leu Gly Glu Leu Ile Gly
 20 25 30

Thr Leu Asn Ala Ala Lys Val Pro Ala Asp Thr Glu Val Val Cys Ala
 35 40 45

Pro Pro Thr Ala Tyr Ile Asp Phe Ala Arg Gln Lys Leu Asp Pro Lys
 50 55 60

Ile Ala Val Ala Ala Gln Asn Cys Tyr Lys Val Thr Asn Gly Ala Phe
 65 70 75 80

Thr Gly Glu Ile Ser Pro Gly Met Ile Lys Asp Cys Gly Pro Arg Gly
 85 90 95

Trp Ser Trp Gly Thr Xaa Arg Glu Ala Cys Leu Trp Gly Ile Arg
 100 105 110

<210> 1597

<211> 82

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (19)

<223> Xaa equals any of the naturally occurring L-amino acids

1663

<220>
<221> SITE
<222> (71)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (79)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (80)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1597
Ile Phe Glu Asp Ser Asp Ser Leu Arg Leu Arg Arg Asp Val Leu Pro
1 5 10 15
Ala Ala Xaa Val Gln Ala Ala Leu Pro Ala Thr Ser Cys Val Pro His
20 25 30
Ala Lys Val Pro Lys Ser His Val His Pro Arg Ser Ala Leu Ser Leu
35 40 45
Thr Cys Leu Leu Leu Val His Leu Ser Ile Ala His Leu His Leu Ala
50 55 60
Ser Ile Asn Ala Leu Leu Xaa Gln Pro Tyr His Pro Gly Ser Xaa Xaa
65 70 75 80
Ser Pro

<210> 1598
<211> 52
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (1)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (3)
<223> Xaa equals any of the naturally occurring L-amino acids

1664

<220>

<221> SITE

<222> (16)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (19)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (26)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (36)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (47)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (48)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (49)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1598

Xaa Lys Xaa Gly Arg Asn Lys Ala Arg Pro Leu Thr Ser Leu Arg Xaa

1

5

10

15

Thr Phe Xaa Ala Thr Phe Cys Pro Val Xaa Gly Thr Tyr Ile Leu Asn

20

25

30

Asp Cys Pro Xaa Thr His Ser Gly Ile Phe Phe Phe Leu Lys Xaa Xaa

35

40

45

Xaa Lys Ala Phe

50

1665

<210> 1599
<211> 32
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (4)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (9)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (11)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (15)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (26)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (27)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1599
Ala Phe Asn Xaa Ser Tyr Arg Lys Xaa Val Xaa Ala Val Arg Xaa Glu
1 5 10 15
Phe Arg Val Thr Gln Arg Pro Gly Leu Xaa Xaa Leu Gly Leu Glu Phe
20 25 30

<210> 1600
<211> 19
<212> PRT
<213> Homo sapiens

1666

<220>
 <221> SITE
 <222> (12)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (13)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (15)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1600
 Ala Arg Gly Phe Phe Phe Phe Phe Phe Phe Phe Xaa Xaa Phe Xaa Phe
 1 5 10 15

Phe Lys Lys

<210> 1601
 <211> 22
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (2)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (20)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (22)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1601
 Arg Xaa Asn Arg Val Phe Phe Phe Phe Phe Phe Phe Phe Phe Phe
 1 5 10 15

Phe Ph Phe Xaa Pro Xaa
 20

1667

<210> 1602
<211> 104
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (98)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1602
Asp Phe Gly Arg Ser Phe Leu Leu Trp Phe Ser Leu Phe Phe Leu Pro
1 5 10 15
Phe Tyr Ser Ala Arg Ile Ser Gly Gly Leu Met Val Gly Tyr Asn Val
20 25 30
Ser Val Leu Leu Gln Ile Gly Leu Lys Gly Tyr Pro Ala Glu Ser Pro
35 40 45
Ala Phe Leu Ser Ser Ile Tyr Phe Ser Gly Lys Leu Phe Phe Leu Phe
50 55 60
Phe Phe Lys Val Asn Leu Cys Ile Glu Leu Asn Cys Ile Ser Val Phe
65 70 75 80
Pro Ala Tyr Val Tyr Ile Ile Pro Met Ile Pro Asn Ser Tyr Leu Tyr
85 90 95
Phe Xaa Thr Asn Ser Gln Ser Glu
100

<210> 1603
<211> 86
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (30)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (45)
<223> Xaa equals any of the naturally occurring L-amino acids

1668

<220>

<221> SITE

<222> (62)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (63)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (73)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (80)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (81)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1603

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Leu | Met | Leu | Ser | Phe | Met | Gly | Ile | Val | Thr | Phe | Leu | Phe | Ser | Lys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | His | Cys | Trp | Asn | His | Gln | Gly | Cys | Gly | Met | Ser | Leu | Xaa | Val | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Met | Gln | Val | Thr | Val | Thr | Phe | Ala | Ile | Met | Ala | Xaa | Phe | Glu | Thr |
| | | 35 | | | | | | 40 | | | | | 45 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Ile | Met | Cys | Phe | Tyr | Phe | Phe | Ile | Pro | Val | Lys | Met | Xaa | Xaa | Lys |
| | 50 | | | | | | 55 | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Lys | Lys | Val | Val | Ile | Ala | Pro | Xaa | Ile | Ser | Gly | Ser | Lys | Leu | Xaa |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |

| | | | | | |
|-----|-----|-----|-----|-----|-----|
| Xaa | Lys | Phe | Pro | Lys | Lys |
| | | | | 85 | |

<210> 1604

<211> 34

<212> PRT

<213> Homo sapiens

1669

<400> 1604

Ser Asp Glu Ile Ile Tyr Asn Phe Ile Val Thr Ser Ser Val Phe Pro
1 5 10 15

Phe Glu Arg Cys Met Asn Ser Leu His Phe Tyr Ser Asn Val Leu Ser
20 25 30

Val Asp

<210> 1605

<211> 53

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (30)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (37)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (43)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (45)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (48)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1605

Leu Leu Val Trp Ser Glu Tyr Asn Thr Ser Ile Ile Thr Tyr Asn Ser
1 5 10 15

1670

Xaa Pro Gly Thr Gly Gly Tyr Lys Tyr Asn Phe Phe Lys Xaa Asn Ser
 20 25 30

Trp Leu Ser Thr Xaa Leu Gln Val Pro Leu Xaa Gly Xaa Leu Trp Xaa
 35 40 45

Ile Thr Leu Gly Lys
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<210> 1606

<211> 32

<212> PRT

<213> Homo sapiens

<220>

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<222> (15)

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<220>

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1671

<400> 1606

Asp Ala Trp Ala Asp Ala Trp Gly Lys Val Ser Ser Ser Leu Xaa Ser
1 5 10 15

Xaa Ile Cys Xaa Leu Xaa Xaa Arg Lys Val Arg Xaa Gly Gln Xaa Met
20 25 30

<210> 1607

<211> 31

<212> PRT

<213> Homo sapiens

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<223> Xaa equals any of the naturally occurring L-amino acids

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<222> (30)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1607

Leu Ile Met Asp Thr Ile Leu Asn Lys Xaa Ile Gln Val Lys Pro Val
1 5 10 15

Lys Glu Lys Glu Ile Lys Val Ser Gly Ser Cys Xaa Ser Xaa Val
20 25 30

<210> 1608

<211> 107

<212> PRT

<213> Homo sapiens

<220>

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1673

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<222> (103)

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<222> (107)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1608

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Pro | Gln | Gly | Ile | Arg | His | Pro | His | Ile | Val | Gln | Leu | Lys | Asp | Phe |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Cys | Glu | Leu | Gly | Ala | Gly | Xaa | Leu | Pro | Lys | Gly | Val | Glu | Lys | Asp |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Xaa | Phe | Arg | Pro | Xaa | Leu | Cys | Leu | Leu | Lys | Gln | Gln | Leu | Gly | Thr |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Glu | Pro | Ile | Asn | Leu | Xaa | Phe | Asn | Pro | Leu | Gly | Ser | Phe | Phe | Ala |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Gln | Gly | Gly | Gly | Arg | Lys | Pro | Trp | Xaa | Phe | Xaa | Xaa | Phe | Xaa | Ser |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Leu | Asn | Pro | Gly | Gln | Xaa | Asn | Phe | Leu | Gly | Pro | Leu | Lys | Glu | Lys |
| | | | | 85 | | | | | | 90 | | | | 95 | |

| | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Phe | Gly | Pro | Xaa | Xaa | Xaa | Xaa | Leu | Ser | Xaa |
| | | | | 100 | | | | 105 | | |

<210> 1609

<211> 72

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

1674

<222> (51)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1609

Arg Gln Thr Ser Thr Ala Lys Leu Gln Lys Gly Gly Phe Cys Ser Arg
1 5 10 15

Arg Lys Glu Asp Val Tyr Leu Gln Gly Ala Lys Gln Gly Glu Leu Gly
20 25 30

Ser Ser Cys Leu Arg Pro Asn Leu His Asp Asp Leu Gln Ala Arg Val
35 40 45

Phe Lys Xaa Ser Gly Lys Phe Pro Gly Lys Pro Glu Val Lys Gly Gln
50 55 60

Asn Cys Lys Ser Val Glu Ile Gly
65 70

<210> 1610

<211> 77

<212> PRT

<213> Homo sapiens

<400> 1610

Leu Tyr Arg Gly Ser Val Gln Gly Arg Val Glu Leu Leu Ser Glu Gly
1 5 10 15

Ser Leu Gly Gly Pro Leu Arg Pro Gly Pro Asp Pro Val Leu Gln Gly
20 25 30

Leu Ser Gln Gly Gln Val His Gly Glu Thr Met Gly Cys Leu Ser Asp
35 40 45

Thr Asp Leu Ala Leu Leu Ser Pro Pro Ile Arg Leu Ser Phe Leu Cys
50 55 60

Ser Glu Cys Leu Gln Gly Leu Asp Pro Gly Lys Glu Phe
65 70 75

<210> 1611

<211> 72

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

1675

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<222> (25)
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<222> (66)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (71)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1611
Glu Asn Leu Pro Ser Gln Xaa Ala Pro Ala Gly Leu Pro Lys Xaa Xaa
1 5 10 15

1676

Gln Pro Cys Leu Tyr Phe Tyr Gly Xaa Asn Gly His Lys Ile Ile Ile
 20 25 30

Asn Leu Thr Lys Thr Xaa Leu Phe Ser Xaa Phe Leu Glu Leu Ser Trp
 35 40 45

Ser Phe Leu Ile Leu Xaa Phe Gly Asn Xaa Arg Leu Phe Leu Lys Cys
 50 55 60

Phe Xaa Asp Val Lys Ile Xaa Tyr
 65 70

<210> 1612

<211> 63

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (11)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (16)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (25)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (34)

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<222> (47)

<223> Xaa equals any of the naturally occurring L-amino acids

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<221> SITE

<222> (52)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1677

<221> SITE

<222> (53)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (56)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1612

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Glu | Ser | Glu | Met | Leu | Cys | Asn | Leu | Leu | Xaa | Gln | Leu | Lys | His | Xaa |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Leu | Arg | Gly | Arg | Asn | Tyr | Lys | Xaa | Cys | Ser | Asn | Leu | Phe | Trp | Val |
| | | | 20 | | | | 25 | | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Xaa | Met | Tyr | Leu | Trp | Val | Gln | Ala | Leu | Phe | Gly | Gly | Phe | Xaa | Phe |
| | | 35 | | | | 40 | | | | | | 45 | | | |

| | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Arg | Asn | Xaa | Xaa | Lys | Val | Xaa | Leu | Leu | Ile | Lys | Lys | Arg | Lys |
| | 50 | | | | | 55 | | | | | 60 | | | |

<210> 1613

<211> 22

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (5)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (11)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (12)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1613

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Ser | Xaa | Ser | Xaa | Thr | Ala | Gly | Asp | Arg | Xaa | Xaa | Thr | Ser | Gly | Ser |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

1678

1 5 10 15
Pro Gly Leu Gln Glu Phe
 20

<210> 1614

<211> 85

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (5)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (6)

<223> Xaa equals any of the naturally occurring L-amino acids

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<223> Xaa equals any of the naturally occurring L-amino acids

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<220>

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<222> (20)

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<220>

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<222> (63)

<223> Xaa equals any of the naturally occurring L-amino acids

1679

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<220>
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 <222> (78)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
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 <222> (83)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (85)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1614
 Asp Gly Gly Phe Xaa Xaa Phe Phe Phe Phe Phe Phe Xaa Xaa Phe
 1 5 10 15
 Phe Phe Tyr Xaa Trp Val Ile Ser Thr Cys Phe Ile Pro Ala Ile Lys
 20 25 30
 Ile Ile Lys Asn Ile Ser Asn Tyr Tyr Thr His Thr Lys Xaa Val Gln
 35 40 45
 Ser Leu Xaa Leu Pro Pro Thr Pro Arg Gly Lys Asn Cys Phe Xaa Leu
 50 55 60
 Trp Glu Val Val Ser Glu Thr Arg Gly Gln Xaa Thr Gln Xaa Arg Leu
 65 70 75 80
 Gly Gly Xaa Arg Xaa
 85

<210> 1615
 <211> 85
 <212> PRT
 <213> Homo sapiens

<400> 1615
 Tyr Ala Val Pro Cys Ser Gly Ile Gln Gly Arg Phe Ser Pro Leu Ser
 1 5 10 15

1680

Phe Leu Leu Ala Gly Asp Ser Cys Thr Cys Ala Gly Ser Cys Lys Cys
 20 25 30
 Lys Glu Cys Lys Cys Thr Ser Cys Lys Lys Ser Lys Trp Asp Pro Leu
 35 40 45
 Phe Pro Leu Pro Leu Pro Val Leu Gln Pro Val Pro Ser Ser Pro Ser
 50 55 60
 Ser Gly Glu Leu Lys Gln Val Trp Gly Cys Pro Ile Ala Pro Gly Asn
 65 70 75 80
 Trp Trp Pro Pro Gln
 85

<210> 1616

<211> 29

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (7)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (25)

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<222> (26)

<223> Xaa equals any of the naturally occurring L-amino acids

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<221> SITE

<222> (28)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (29)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1616

Ala Glu Gly Asn Ile Arg Xaa Ala Lys Lys Lys Lys Lys Lys Lys
 1 5 10 15

1681

Lys Lys Lys Lys Lys Lys Lys Lys Xaa Xaa Lys Xaa Xaa
20 25

<210> 1617

<211> 37

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (11)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (20)

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<221> SITE

<222> (26)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (36)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1617

Gly Pro Ala Xaa Trp Arg Glu Thr Pro Pro Xaa Leu Tyr Lys Glu Phe
1 5 10 15

Pro Gly Val Xaa Gly Ser Phe Ser Leu Xaa Ser Glu Trp Gly Ala Gln
20 25 30

Ile Trp Ala Xaa Cys
35

<210> 1618

<211> 22

<212> PRT

<213> Homo sapiens

1682

<220>

<221> SITE

<222> (2)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (5)

<223> Xaa equals any of the naturally occurring L-amino acids

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<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (22)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1618

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Xaa | Gly | Phe | Xaa | Pro | Ser | Pro | Ser | Cys | Phe | Pro | Gln | Cys | Leu | Lys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | |
|-----|-----|-----|-----|-----|-----|
| Xaa | Leu | Asp | Gly | Leu | Xaa |
| | | | 20 | | |

<210> 1619

<211> 52

<212> PRT

<213> Homo sapiens

<400> 1619

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Ser | Ile | Ser | Leu | Asn | Arg | Asp | Gly | Val | Glu | Glu | Leu | Lys | Val | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Cys | Ser | Leu | Met | Thr | Thr | Met | Phe | Thr | Ile | Cys | Cys | Gly | Leu | Val |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Ala | Leu | Arg | Gln | Glu | Asn | His | Val | Glu | Pro | Thr | Gly | Ser | Arg | Pro |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | |
|-----|-----|-----|-----|
| Ala | Trp | Glu | Thr |
| | | | 50 |

<210> 1620

1683

<211> 52
 <212> PRT
 <213> Homo sapiens

<220>
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 <222> (28)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (35)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1620
 Pro Thr Glu Gln Val Thr Leu Gly Ile Thr Ala Gln Ser Tyr Ser Arg
 1 5 10 15
 Val His Ile Asn Asn Arg Val Tyr Asp Leu Asp Xaa Gly Ser Gly His
 20 25 30
 Pro Asp Xaa Ala Ala Ala Ile Lys Gly Ser Phe Val Gln Arg Leu Lys
 35 40 45
 Ser Tyr Val Ile
 50

<210> 1621
 <211> 113
 <212> PRT
 <213> Homo sapiens

<220>
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 <222> (87)
 <223> Xaa equals any of the naturally occurring L-amino acids

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 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
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 <222> (112)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1621
 Leu Ph Pro Ala Pro Ala Pro Pro Pro Ala Pro Ala Phe Ala Pro Pro

1684

1 5 10 15
 Pro Lys Val Pro Ser Pro Glu Arg Ser Ala Pro Arg Val Pro Leu Pro
 20 25 30
 Ser Pro Gln Pro Ser Tyr Pro Phe Arg Pro Ala Ala Ser Gly Gly Thr
 35 40 45
 Pro Pro Pro Ala Cys Leu Pro Pro Ala Gln Pro Cys Gln Val Pro Pro
 50 55 60
 Ala Met Asn Leu Phe Arg Phe Leu Gly Lys Leu Ser Gln Leu Leu Ala
 65 70 75 80
 Ile Ile Leu Leu Leu Leu Xaa Ile Trp Asn Ser Arg Ser Cys Ala Glu
 85 90 95
 Ile Gln Glu Lys Asn Ser Pro Val Trp Cys Gly Xaa Phe Asn Gly Xaa
 100 105 110
 Ile

<210> 1622

<211> 21

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (6)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1622

Val Phe Lys Thr Met Xaa Gln Val Ser Asn Asp Glu Ile Lys His Leu
 1 5 10 15

Phe Val Leu Tyr Gln
 20

<210> 1623

<211> 40

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

1685

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<221> SITE
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<223> Xaa equals any of the naturally occurring L-amino acids

<220>
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<222> (23)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (29)
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<222> (39)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (40)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1623
Leu Arg Thr Ser Cys Phe Xaa Leu Asn Xaa Met Ile His Phe Ile Lys
1 5 10 15
Val Pro Val Ile Lys Tyr Xaa Val Lys Tyr Leu Leu Xaa Trp Thr Ile
20 25 30
Xaa Cys Lys Leu Pro Phe Xaa Xaa
35 40

<210> 1624
<211> 95
<212> PRT
<213> Homo sapiens

<220>

1686

<221> SITE
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<223> Xaa equals any of the naturally occurring L-amino acids

<220>
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<220>
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<220>
<221> SITE
<222> (87)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (95)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1624
Ile His Pro Xaa Leu Ala Ser Gln Val Ala Gly His Tyr Arg Arg Glu
1 5 10 15
His Ser Arg Pro Arg Leu Lys Xaa Ala Tyr Ser Lys Lys Gln Phe Gln
20 25 30

1687

Phe Leu Ser Lys Leu Cys Xaa Xaa Arg Gly Ser Thr Asp Phe Leu Gly
 35 40 45
 Pro Val Asn Leu Asn Gln Ser Leu Arg Phe Cys Gln Glu Ser Ser Leu
 50 55 60
 Leu Ser Lys Trp Val Phe Pro Asn Gly His Asn Gly Lys Xaa Xaa Arg
 65 70 75 80
 Gly Xaa Asn Ile Lys Lys Xaa Lys Lys Asn Leu Gly Gly Gly Xaa
 85 90 95

<210> 1625

<211> 40

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (10)

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<220>

<221> SITE

<222> (16)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (26)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1625

Ala Arg Ala Thr Met Ala Leu Trp Thr Xaa Val Ser Phe Ala Glu Xaa
 1 5 10 15

Leu Glu Arg Gly Ser Asp Glu Lys Val Xaa Leu Lys Arg Leu Ala Arg
 20 25 30

Leu Leu Gly Leu Ile Thr Ala Pro
 35 40

<210> 1626

<211> 26

<212> PRT

<213> Homo sapiens

1688

<220>
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<222> (8)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (26)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1626
Ala Arg Ala Gly Ile Val Pro Xaa His Ser Ser Leu Gly Asp Arg Ala
1 5 10 15
Arg Leu His Leu Lys Lys Lys Lys Xaa
20 25

<210> 1627
<211> 171
<212> PRT
<213> Homo sapiens

<220>
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<222> (59)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (89)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (118)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (119)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
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<223> xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE

1689

<222> (122)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (123)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (135)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (155)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1627

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Leu | Gln | Ala | Ser | Glu | Asn | Gln | Pro | Cys | Ser | Arg | His | Ala | Arg | Pro |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Leu | Pro | Ser | Ser | Leu | Phe | Pro | Leu | Pro | Ala | Gln | Pro | Ser | Leu | Pro |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ser | Ala | Gly | Lys | Ala | Gly | Thr | His | Ser | Gly | Cys | Leu | Pro | Pro | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Lys | Glu | Arg | Glu | Gly | Gly | Trp | Val | Gly | Xaa | Gly | Leu | Pro | Pro | Gly |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Val | Thr | Leu | Pro | Gly | Pro | Arg | Ile | Ala | Pro | Gly | Pro | Lys | Pro | Lys |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Gln | Pro | Gly | Thr | Lys | Leu | Arg | Xaa | Ser | Ala | Gly | Arg | Ser | Tyr | Phe |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Leu | Pro | Pro | Pro | Leu | Leu | Val | Pro | Pro | Pro | Gly | Arg | Leu | Ala | Ala |
| | | 100 | | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Ser | Asp | Thr | Gly | Xaa | Xaa | Lys | Xaa | Xaa | Xaa | Glu | Pro | Trp | Tyr | Pro |
| | | 115 | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Leu | Gly | Pro | Gly | Pro | Xaa | Leu | Gly | Pro | Asn | Pro | Ser | Ser | Val | Asp |
| | 130 | | | | | 135 | | | | | 140 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Gly | Val | Trp | Asn | Lys | Cys | Cys | Leu | Ser | Xaa | Gln | Gln | Lys | Lys | Lys |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |

| | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Arg | Gly | Gly | Arg | Phe | Arg | Gly | Phe | Lys | Ala |
| | | | | 165 | | | | | 170 | |

1690

<210> 1628
 <211> 120
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (53)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (93)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (110)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (111)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (117)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1628
 Arg Pro Ala Arg Ser Pro Ala Glu Val Gly Ser Arg Gly Leu Ser Ser
 1 5 10 15
 Pro Pro Arg Ala His His Arg Pro Val Ser Pro Ala Ala Pro Gly Arg
 20 25 30
 Trp Ser Thr Ser Ala Arg Val Arg Thr Arg Lys Met Val Asn Tyr Ala
 35 40 45
 Trp Ala Gly Arg Xaa Arg Arg Lys Leu Trp Trp Arg Ser Val Ala Val
 50 55 60
 Leu Thr Cys Lys Ser Val Val Arg Pro Gly Tyr Arg Gly Glu Arg Leu
 65 70 75 80
 Asn Arg Thr Ile Leu Val Ser Trp Phe Pro Ser Glu Xaa Phe Pro Gln
 85 90 95

1691

Asp Lys Leu Gly Ala Leu Ala Arg Pro Arg Arg Asn Pro Xaa Xaa Gly
 100 105 110

Ile Phe Ile Arg Xaa Lys Arg Ile
 115 120

<210> 1629

<211> 86

<212> PRT

<213> Homo sapiens

<400> 1629

Asn Leu Val Pro Gly Ser Ser Ala Thr Tyr Ile Ser Leu Ser Ser Cys
 1 5 10 15

Cys Phe Val Lys Arg Lys Arg Lys Lys Lys Pro Lys Leu Val Arg Val
 20 25 30

Ile Ser Asn Tyr Leu Ile Phe Cys Arg Ser Val Ile Lys Asn Leu Val
 35 40 45

Ile Pro Ser Thr Ser Tyr Cys Glu Glu Gln Thr Leu Gly Pro Thr Leu
 50 55 60

Lys Ser Pro Leu Val Thr His Ser His Pro Pro Gly Ser Cys Leu Pro
 65 70 75 80

Gly Arg Gly Cys Arg Lys
 85

<210> 1630

<211> 35

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (26)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1630

Leu Lys Lys Lys Phe Pro Glu Glu Glu Lys Lys Thr Thr Lys Asn Lys
 1 5 10 15

Thr Leu Lys Val Asp Ile Leu Cys Gly Xaa Thr Phe Glu Leu Asn Ser
 20 25 30

1692

Glu Phe Phe
35

<210> 1631
<211> 40
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (12)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (23)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (29)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (31)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1631
His Glu Gln Pro Thr Ala Ala Cys Ile Cys Ile Xaa Arg Gln Val Pro
1 5 10 15

Pro Val Pro Ala Ala Arg Xaa Pro Gln Ser Arg Thr Xaa Ser Xaa Gln
20 25 30

Ala Lys Leu Ala Leu Thr Met Pro
35 40

<210> 1632
<211> 97
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (26)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (41)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (44)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (47)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (53)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (61)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (74)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (91)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (95)

<223> Xaa equals any of the naturally occurring L-amino acids

1694

<400> 1632

Xaa Ser Gly Ser Pro Gly Pro Ala Gly Pro Arg Gly Pro Val Gly Pro
1 5 10 15
Xaa Gly Pro Pro Gly Lys Asp Gly Thr Xaa Gly His Pro Gly Ala Ile
20 25 30
Gly Pro Pro Gly Pro Arg Gly Asn Xaa Gly Glu Xaa Gly Ser Xaa Gly
35 40 45
Ser Pro Gly Pro Xaa Arg Ala Thr Arg Ala Leu Leu Xaa Pro Pro Gly
50 55 60
Ala Pro Gly Pro Cys Cys Gly Gly Val Xaa Ala Ala Ala Ile Ala Gly
65 70 75 80
Ile Gly Arg Leu Lys Lys Leu Gly Arg Phe Xaa Pro Arg Val Xaa Trp
85 90 95
Gly

<210> 1633

<211> 43

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (31)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (35)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (38)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (39)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1695

<221> SITE

<222> (40)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1633

Glu Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys
 1 5 10 15

Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Gly Arg Pro Phe Xaa Arg
 20 25 30

Ile Gln Xaa Tyr Val Xaa Xaa Xaa Ala Thr Ser
 35 40

<210> 1634

<211> 88

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (82)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (88)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1634

Ala Arg Ala Ala Leu Ser Ala Thr Lys Thr Cys Arg Pro Ala Phe Arg
 1 5 10 15

Gly Ala Ser Ala Ala Pro Arg Gly Gly Gly Pro Ala Arg Ser Pro Gly
 20 25 30

Arg Val Leu Gly Arg His Ala Ala Gly Ser Leu Ala Arg Leu Val Gly
 35 40 45

Arg Ser Arg Gly Phe Trp Leu Leu Gly Gly Glu Val Lys Ser Phe Cys
 50 55 60

Arg Cys Trp Gly Arg Arg Thr Arg Arg Glu Arg Lys Lys Lys Lys Lys
 65 70 75 80

Lys Xaa Leu Gly Lys Tyr Phe Xaa
 85

1696

<210> 1635

<211> 105

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (70)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (102)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1635

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Ser | His | Ser | Gly | Phe | Cys | Ser | Pro | Thr | Asp | Glu | Asp | Arg | Cys | Thr |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Glu | Ala | Asp | Gly | Asn | His | Pro | Val | Glu | Val | His | Leu | Arg | Ser | Asp |
| | | | 20 | | | | 25 | | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Asp | Asp | Ala | Arg | Ala | Met | Thr | Gly | Pro | Ala | Gly | Val | Ala | Pro | Arg |
| | | | 35 | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Asp | Gln | Pro | Trp | Ser | Ser | His | Arg | Arg | Lys | Pro | Leu | Arg | Ser | Gly |
| 50 | | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Arg | Arg | Arg | Lys | Xaa | Lys | Trp | Gln | Lys | Gln | Lys | Glu | Pro | Gln | Ser |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ile | Gly | Asp | His | Ser | Met | His | Phe | Leu | Pro | Ala | Ala | Thr | Gln | Thr |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Pro | Glu | Leu | Leu | Xaa | Asn | Leu | Met |
| | | | 100 | | | | 105 | |

<210> 1636

<211> 47

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (5)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1697

<221> SITE
<222> (6)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (46)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1636
Gln Arg Pro Arg Xaa Xaa Gly Thr Gly Ser Gly Pro Pro Gly Pro Gly
1 5 10 15
Lys Ala Ser His Gly Gly Gly Ala Pro Val Ser Arg Ser Gly Thr Gly
20 25 30
Ser Glu Asp Gly Arg Glu Ser Arg Ala Thr Val Val Xaa Cys
35 40 45

<210> 1637
<211> 55
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (16)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (19)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (21)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (31)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (38)
<223> Xaa equals any of the naturally occurring L-amino acids

1698

<220>

<221> SITE

<222> (49)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (50)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (55)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1637

Gly Asp Pro Pro Glu Gly Pro Ala Thr Ser Pro Leu Thr Asn Ser Xaa

1

5

10

15

His Pro Xaa Ser Xaa Gly Thr Ala Ala Ala Thr Gln Arg Arg Xaa Ser

20

25

30

Glu Gln Gly Gly Arg Xaa Thr Cys Gly Pro Ala Gly Ala Gly Ser Pro

35

40

45

Xaa Xaa Pro Pro Arg Ala Xaa

50

55

<210> 1638

<211> 55

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (7)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (11)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1699

<221> SITE
<222> (14)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (18)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (19)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (20)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (29)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (30)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (34)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (35)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (38)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (39)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE

1700

<222> (41)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (42)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (44)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (49)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1638

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Arg | Xaa | His | Ala | Thr | Xaa | Tyr | Arg | Gly | Xaa | Phe | Cys | Xaa | Arg | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Xaa | Xaa | Xaa | Leu | His | Ser | Ala | Asn | Val | Thr | Thr | Xaa | Xaa | Leu | Leu |
| | | | | 20 | | | | 25 | | | | | | 30 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Xaa | Xaa | Phe | Tyr | Xaa | Xaa | Arg | Xaa | Xaa | Ala | Xaa | Val | Asn | Ile | Ser |
| | | | 35 | | | | 40 | | | | | | 45 | | |

| | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Val | Pro | His | Cys | Pro | Ile |
| | 50 | | | | | 55 |

<210> 1639

<211> 58

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (15)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (54)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1639

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Cys | Pro | Gln | Asn | Pro | Leu | Asn | Pro | Leu | Val | Asn | Leu | Thr | Xaa | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

1701

Pro Lys Arg Asn Ser Ser Leu Asp Thr Arg Lys Lys Pro Cys Arg Glu
 20 25 30

Ser Lys Lys Phe Asn Thr His Ser Arg Pro Lys Ser Ser His Gln Leu
 35 40 45

Arg Lys Arg Ser Ser Xaa Thr Pro Thr Thr
 50 55

<210> 1640

<211> 37

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (30)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (32)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (34)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (36)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1640

Met Cys Val Asp Cys Met Asn Asp Leu Glu Lys Lys Lys Lys Lys Lys
 1 5 10 15

Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Xaa Pro Xaa
 20 25 30

Gly Xaa Pro Xaa Pro
 35

<210> 1641

<211> 41

1702

<212> PRT

<213> Homo sapiens

<400> 1641

Tyr Val Trp Leu Gly His Phe Val Ala Lys Val Arg Thr Cys Leu Trp
1 5 10 15

Lys Thr Ser Leu Trp Leu Gly Glu Ser Val Trp Pro Ala Ala Ser Asp
20 25 30

Leu Cys Arg Val Leu Thr Cys Gln Gly
35 40

<210> 1642

<211> 99

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (18)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (19)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (20)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (26)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (27)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1703

<221> SITE

<222> (40)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (42)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (49)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (51)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (95)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1642

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Pro | Ala | Ala | Ser | Tyr | Leu | Met | Thr | Leu | Met | Glu | Pro | Leu | Ser | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Xaa | Xaa | Xaa | Leu | Ser | Pro | Pro | Leu | Xaa | Xaa | Ser | Lys | Glu | Asn | His |
| | | | | 20 | | | | 25 | | | | | | 30 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Asp | Ala | Arg | Ser | Cys | Leu | Xaa | Ser | Xaa | Pro | Lys | Cys | Ser | Cys | Ser |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Pro | Xaa | Pro | Gly | Ile | Ser | Leu | Pro | Arg | Asp | Lys | Ser | Ala | Ser | Glu |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Leu | His | Asp | Ser | Leu | Cys | Phe | Gln | Asn | Pro | Gly | Leu | Phe | Cys | Ile |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ser | Phe | Leu | Gly | Pro | Ala | Ser | Cys | Val | Pro | Leu | Lys | Gly | Xaa | Trp |
| | | | | 85 | | | | | 90 | | | | | 95 | |

Ala Lys Thr

<210> 1643

<211> 42

<212> PRT

1704

<213> Homo sapiens

<220>

<221> SITE

<222> (2)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1643

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Xaa | Pro | Xaa | Asn | Leu | Gly | Lys | Ala | Arg | Leu | Gln | Val | Pro | Val | Arg |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Ser | Arg | Val | Asp | Leu | Arg | Val | Phe | Ile | Tyr | Ile | Asp | Ile | Tyr | Ile |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Ile | Tyr | Arg | Tyr | Ile | Tyr | Arg | Tyr | Ile |
| | | 35 | | | | | 40 | | |

<210> 1644

<211> 46

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (11)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (26)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (35)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

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<222> (40)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

1705

<222> (42)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (43)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1644

Arg Val Gly Val Arg Leu Ala Gln Val Pro Xaa His Leu Thr Ser Arg
1 5 10 15

Ser His His Pro His Pro Val Phe His Xaa Arg Leu Lys Ala Thr Met
20 25 30

Arg Met Xaa His Thr Glu Ala Xaa Met Xaa Xaa Asn His Leu
35 40 45

<210> 1645

<211> 69

<212> PRT

<213> Homo sapiens

<400> 1645

His Val Arg Leu Lys Pro Ile Phe Ser Pro Phe Phe Leu Leu Phe Ser
1 5 10 15

Leu Ala Ala His Ile Val Pro Leu Phe Tyr Glu Pro Gln Phe Ser Gly
20 25 30

Leu Ser Leu Lys Lys Lys Ser Ser Leu Asn Ile Ala Phe Arg Lys Leu
35 40 45

Leu Phe Leu Asp Lys Lys Ser Tyr Thr Leu Lys Lys Lys Lys Thr Phe
50 55 60

Ser Arg Lys Ile Tyr
65

<210> 1646

<211> 78

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (42)

1706

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (43)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

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<222> (54)

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<220>

<221> SITE

<222> (68)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (76)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (77)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1646

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Ile | Cys | Phe | Val | Leu | Ser | Phe | Ile | Tyr | His | Phe | Phe | Leu | Tyr | Lys |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ile | Ile | Ser | Arg | Phe | Leu | Tyr | Tyr | Met | Ile | Asp | Ile | Asn | Trp | Val |
| | | | 20 | | | | 25 | | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Ser | Ser | Arg | Gln | Phe | Val | Phe | Ser | Xaa | Xaa | Pro | Pro | Ser | Thr | Val |
| | | | 35 | | | | 40 | | | | | | 45 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Gln | Arg | Pro | Asp | Xaa | Val | Gly | Lys | Val | Phe | Phe | Leu | Arg | Ile | Val |
| | 50 | | | | | 55 | | | | | | 60 | | | |

| | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Gly | Ser | Xaa | Gln | Leu | Gly | Leu | Ile | Lys | Ala | Xaa | Xaa | Pro |
| 65 | | | | | 70 | | | | 75 | | | | |

<210> 1647

<211> 58

<212> PRT

<213> Homo sapiens

<400> 1647

1707

I1 Cys Pro Gln Asn Pro Leu Asn Pro Leu Val Asn Leu Thr Val Ser
1 5 10 15
Pro Lys Arg Asn Ser Ser Leu Asp Thr Arg Lys Lys Pro Cys Arg Glu
20 25 30
Ser Lys Lys Phe Asn Thr His Ser Arg Pro Lys Ser Ser His Gln Leu
35 40 45
Arg Lys Arg Ser Ser Ser Thr Pro Thr Thr
50 55

<210> 1648
<211> 59
<212> PRT
<213> Homo sapiens

<400> 1648
Cys Leu Phe Leu Leu Pro Val Met Leu Leu Gln Ile His Ile Ser Arg
1 5 10 15
Ser Thr Val Asn Val Ser Thr Ser Arg Gly Thr Pro Pro Ser Thr Leu
20 25 30
Ser Val Lys Gly Gln Asn Glu Thr Val Arg Val Lys Gly Thr Gly Arg
35 40 45
Lys Phe Ala Cys Leu Gln Val Thr Arg Ile Arg
50 55

<210> 1649
<211> 110
<212> PRT
<213> Homo sapiens

<220>
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<222> (11)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
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<222> (29)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE

1708

<222> (54)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (66)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (71)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (86)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (88)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (94)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1649

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Pro | Pro | Pro | Val | Pro | Trp | Gly | Gly | Pro | Xaa | Arg | Glu | Gly | Glu | Val |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | His | Thr | Lys | Ala | Asp | Ala | Pro | Leu | Val | Gly | Gly | Xaa | Trp | Pro | Gly |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Ile | Glu | Gly | Cys | Ala | Gly | Leu | Pro | Leu | Arg | Ala | Ala | Gln | Thr | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Met | Cys | Gly | Gly | Xaa | Ala | Arg | Trp | Val | Arg | Ala | Gln | Glu | Val | Ala |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Xaa | Thr | Val | Ala | Asp | Xaa | Leu | Pro | Arg | Val | Pro | Gly | Ser | Ser | Leu |
| | 65 | | | | | 70 | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Pro | Trp | Tyr | Ala | Xaa | Asn | Xaa | Trp | Phe | Pro | His | Pro | Xaa | Ala | Ala |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Ser | Leu | Phe | Pro | Trp | Ile | Ser | Gln | Ala | Lys | Leu | Gly | Leu |
| | | 100 | | | | | 105 | | | | | 110 | |

1709

<210> 1650

<211> 74

<212> PRT

<213> Homo sapiens

<220>

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<222> (11)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (28)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1650

Ser Pro Glu Gly Leu Ser Leu Leu Ala Pro Xaa Pro Gly Arg Ala Pro
1 5 10 15

Ala Gly Pro Thr Pro Leu Arg Gly Gln Cys Gln Xaa Gly Ser Leu Thr
20 25 30

Gly Ala Val His Leu Ser Asn Gly Asn Ala Gly Val Leu Arg Arg Ala
35 40 45

Gln Gly Gly Gln Lys Pro Pro Val Glu Gln Lys Gly Lys Ser Ser Leu
50 55 60

Asp Leu His Phe Gln Tyr Glu Tyr Arg Pro
65 70

<210> 1651

<211> 83

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (30)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (45)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

1710

<222> (49)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (51)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (52)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (62)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (64)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (65)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (67)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1651

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Lys | Gly | Gly | Gly | Arg | Met | Met | Thr | Tyr | Pro | Glu | Val | Leu | Pro | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Ala | Arg | Thr | Gly | Ala | Cys | Ser | Val | Pro | Trp | Glu | His | Xaa | Ala | Gln |
| | | 20 | | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Ser | Gly | Val | Gln | Ala | Val | Gly | Ser | Phe | Pro | Asn | Xaa | Ser | Ile | Ser |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Pro | Xaa | Xaa | Leu | Lys | Pro | Val | Gly | Gln | Ile | Ser | Lys | Xaa | Leu | Xaa |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Arg | Xaa | Pro | Phe | Thr | Asn | Pro | Arg | Phe | Cys | Gly | Gln | Cys | Pro | Lys |
| | 65 | | | | | 70 | | | | 75 | | | | 80 | |

Gly Val Gly

1711

<210> 1652
<211> 90
<212> PRT
<213> Homo sapiens

<220>
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<222> (11)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
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<222> (41)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (43)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (54)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (55)
<223> Xaa equals any of the naturally occurring L-amino acids

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<222> (56)
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<220>
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<222> (76)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (89)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1652
Phe Phe Phe Phe Leu Asp Val Lys Gly Ile Xaa Phe Gln Arg Leu Leu
1 5 10 15

1712

Glu Ser Leu Val Tyr Thr Asp Glu Gly Val Arg Cys Cys Phe Pro Ser
 20 25 30
 Glu Ser Ser Ala Ser Thr Glu Ile Xaa Leu Xaa Leu Ile Phe Asp Ile
 35 40 45
 Leu His Cys Leu Leu Xaa Xaa Xaa Arg Ser Phe Leu Pro Phe Thr Ser
 50 55 60
 Pro Ser Asn Tyr Val Gln Met Cys Arg Leu Leu Xaa Ser Gly Leu Ser
 65 70 75 80
 Pro Lys Ala Leu Thr Leu Gly Leu Xaa Phe
 85 90

<210> 1653

<211> 55

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (40)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (42)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (44)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (48)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (49)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1653

Lys Leu Trp Phe Val Phe Val Phe Cys Leu Phe His Leu Phe Pro Ser
 1 5 10 15

1713

Gln Pro Gln Thr Phe Cys Ser Leu Arg Glu Leu Thr Phe Pro Phe Phe
 20 25 30

Phe Leu Phe Phe Phe Phe Gly Xaa Leu Xaa Val Xaa Asn Lys Ile Xaa
 35 40 45

Xaa Ala Ile Lys Lys Lys Lys
 50 55

<210> 1654

<211> 61

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (2)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (13)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (16)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (41)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (47)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (53)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (58)

<223> Xaa equals any of the naturally occurring L-amino acids

1714

<220>

<221> SITE

<222> (60)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1654

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Xaa | Ala | Thr | Asn | Leu | Pro | Ser | Leu | Val | Ile | Ala | Xaa | Cys | Ser | Xaa |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Glu | Ser | Leu | Val | Pro | Leu | Leu | Ile | Trp | Pro | Gln | Lys | Pro | Pro | Asn |
| | 20 | | | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Pro | Trp | Leu | Ile | Leu | Thr | Val | Xaa | Pro | Lys | Lys | Gly | Thr | Xaa | Ser |
| | 35 | | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Gly | Pro | Leu | Xaa | Lys | Lys | Thr | Leu | Xaa | Lys | Xaa | Asn |
| | 50 | | | | | 55 | | | | | 60 | |

<210> 1655

<211> 20

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (18)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (19)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (20)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1655

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Ala | Val | Leu | Gln | Thr | Ala | Arg | Arg | Ala | Arg | Ser | Ala | Cys | Arg | Leu |
| 1 | | | | 5 | | | | | 10 | | | | 15 | | |

| | | | |
|-----|-----|-----|-----|
| Xaa | Xaa | Xaa | Xaa |
|-----|-----|-----|-----|

1715

20

<210> 1656
<211> 24
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (12)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (13)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (17)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (19)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1656
Ala Asp Ile Gln Thr Glu Arg Ala Tyr Gln Lys Xaa Xaa Thr Ile Phe
1 5 10 15
Xaa Asn Xaa Lys Arg Val Leu Leu
20

<210> 1657
<211> 34
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (10)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (31)

1716

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (34)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1657

Ala Ala Ala Cys Leu Pro Ala Thr Glu Xaa Ser Gln His His Glu Gly
1 5 10 15

Leu Asp Leu Leu Ser Pro Leu Pro Gly Arg Glu Gly Leu Gly Xaa Pro
20 25 30

Ser Xaa

<210> 1658

<211> 51

<212> PRT

<213> Homo sapiens

<400> 1658

Cys Lys Gln Tyr Leu Thr Asn Pro Gln Val Leu Asn Tyr Gln Thr Cys
1 5 10 15

Ile Lys Asn Phe Gly Trp Gly Asp Leu Gly Ala Glu Pro Asn Leu Arg
20 25 30

Ala Val His Ala Lys Thr Ser Pro Val Lys Ala Asn Tyr Tyr Thr Gln
35 40 45

Leu Ile Gln
50

<210> 1659

<211> 166

<212> PRT

<213> Homo sapiens

<220>

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<222> (50)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

1717

<222> (53)
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<223> Xaa equals any of the naturally occurring L-amino acids

<220>
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<222> (80)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
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<222> (84)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
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<223> Xaa equals any of the naturally occurring L-amino acids

<220>
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<222> (88)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (95)
<223> Xaa equals any of the naturally occurring L-amino acids

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<222> (98)
<223> Xaa equals any of the naturally occurring L-amino acids

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<223> Xaa equals any of the naturally occurring L-amino acids

<220>
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<222> (117)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (118)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (122)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (123)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (125)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (132)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (133)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (139)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (144)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (149)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (160)

<223> Xaa equals any of the naturally occurring L-amino acids

1719

<220>

<221> SITE

<222> (162)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1659

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Thr | His | Ala | Ser | Gly | His | Ser | His | Ser | Gln | Ala | Ser | Leu | Ala | Gly |
| 1 | | | | 5 | | | | | 10 | | | | 15 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Arg | Val | Ala | Arg | Val | Arg | Cys | Leu | Leu | Gln | Leu | Gln | Asp | Asp | Arg |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Glu | Asp | Ala | Leu | Leu | Leu | Phe | Leu | Pro | Gln | Pro | Arg | Gln | Glu | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Xaa | Pro | Gln | Xaa | Pro | Ser | Arg | Pro | Ser | Arg | Gly | Pro | Xaa | Trp | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Leu | Leu | Lys | Lys | Ala | Glu | Xaa | Gly | Gly | His | Pro | Ser | Gln | Glu | Xaa |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Gly | Trp | Xaa | Gly | Glu | Xaa | Xaa | Glu | Arg | Arg | Pro | Pro | Trp | Xaa | Leu |
| | | | 85 | | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Xaa | Arg | Thr | Phe | Trp | Asn | Arg | Ile | Pro | Glu | Glu | Gln | Arg | Ala | Arg |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Pro | Xaa | Leu | Xaa | Xaa | Arg | Gly | Pro | Xaa | Xaa | Val | Xaa | Pro | Trp | Gly |
| | | 115 | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Leu | Glu | Xaa | Xaa | Pro | Gly | Lys | Glu | Ser | Xaa | Leu | Arg | Gly | Gly | Xaa |
| | 130 | | | | | 135 | | | | | | 140 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Arg | Gly | Lys | Xaa | Leu | Phe | Leu | Ile | Lys | Ala | Lys | Leu | Gly | Ile | Xaa |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |

| | | | | | |
|-----|-----|-----|-----|-----|-----|
| Phe | Xaa | Lys | Arg | Lys | Gly |
| | | | | 165 | |

<210> 1660

<211> 68

<212> PRT

<213> Homo sapiens

<220>

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<222> (9)

<223> Xaa equals any of the naturally occurring L-amino acids

1720

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<222> (12)
<223> Xaa equals any of the naturally occurring L-amino acids

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<223> Xaa equals any of the naturally occurring L-amino acids

1721

<220>

<221> SITE

<222> (66)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1660

Ser Pro Gly Leu Gln Glu Phe Gly Xaa Arg Gly Xaa Arg Asn Arg Leu
1 5 10 15

Asn Tyr Ala Xaa Xaa His His Xaa Xaa Pro His Arg Xaa Ser Ile Pro
20 25 30

Thr His Ala Leu His Ser Xaa Arg Gly Asp Asp Ala Xaa Leu Thr Ile
35 40 45

Lys Ile Xaa Xaa Pro Pro Met Val Leu Glu Pro Thr Ser Thr Pro Asp
50 55 60

His Xaa Val Asp
65

<210> 1661

<211> 61

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (47)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (48)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (54)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1661

Leu Asn Ala Asp Thr Leu Met Asn Asp Gln Gln Gln Leu Ser Ala Leu
1 5 10 15

Lys Lys Thr Leu Ile Phe Glu Phe Thr Cys Trp Val Pro Gly Ser Asn
20 25 30

Gly Gly Lys Arg Pro Leu Phe Ile Lys Arg Gly Pro Pro Phe Xaa Xaa

1722

| | | |
|---|----|----|
| 35 | 40 | 45 |
| Pro Lys Asp Phe Leu Xaa Phe Gln Ile Gly Lys Gly Thr | | |
| 50 | 55 | 60 |

<210> 1662
 <211> 54
 <212> PRT
 <213> Homo sapiens

<220>
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 <222> (3)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
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<220>
 <221> SITE
 <222> (47)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1662
 Thr Val Xaa Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Asn Leu
 1 5 10 15

Glu Val Xaa Gly Ile Xaa Asn Leu Asp Ile Xaa Phe Gly Thr Ser Asn
 20 25 30

Pro His Ser Pro Thr His Ala Gly Gly Cys Ala Cys Arg Thr Xaa Leu
 35 40 45

Thr Asp Trp Trp Ile Leu
 50

1723

<210> 1663

<211> 95

<212> PRT

<213> Homo sapiens

<400> 1663

Ala Arg Glu Lys Leu Cys Val Arg Gly Arg Gly Leu Phe Arg Cys Arg
1 5 10 15

Val Ser Ser Ser Cys Thr Leu Phe Lys Ser Leu His Trp Arg Asn Ser
20 25 30

Ala Ile Thr Ser Ser Leu Val Ala Glu Gly Arg Gly Asn Ile His Leu
35 40 45

Phe Met Pro Val Cys Cys Met Gln Ala Phe Trp Leu Pro Thr Leu Gln
50 55 60

Gln Asn Asn Cys Thr Asn Ser Leu Val Pro Ile Pro Pro Thr Glu Ser
65 70 75 80

Pro Gly Ala Thr Val Phe Phe Ala Leu His Cys Lys Glu Arg Asp
85 90 95

<210> 1664

<211> 100

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (70)

<223> xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (85)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (90)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (91)

<223> Xaa equals any of the naturally occurring L-amino acids

1724

<400> 1664

Val Asn Gln Glu Thr Thr Pro Val Asp Cys Gly Ala Leu Glu Gly Leu
1 5 10 15

Val Gly Val Asn Leu Pro Thr Pro Tyr Asn Cys Gly Arg Ile Gln Lys
20 25 30

Ser Leu Ser Phe Tyr Ile His Ser Leu Asp Val Ile Gly Pro Leu Pro
35 40 45

Pro Ile Ser Leu Arg Cys His Ala Ser Met Gly Ser Gly Val Val Arg
50 55 60

Lys Asn Lys Arg Arg Xaa Asp Ser Leu Val Met Asp Lys Ile Leu Thr
65 70 75 80

Thr Val Phe Pro Xaa Gly Ile Pro Tyr Xaa Xaa Phe Asn Phe Phe Phe
85 90 95

Ser Leu Lys Asn
100

<210> 1665

<211> 33

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (11)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (18)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (21)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

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<222> (24)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1725

<221> SITE

<222> (26)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1665

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ala | Pro | Gly | Gly | Ser | Cys | Tyr | Ser | Gly | Xaa | Pro | Arg | Val | Pro | Lys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Xaa | Ile | Gln | Xaa | Asp | Pro | Xaa | Ser | Xaa | Pro | Pro | Cys | Leu | Gln | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |

Val

<210> 1666

<211> 47

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (26)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (37)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (39)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1666

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Arg | Val | Gly | Gly | Arg | Val | Gly | Gly | Arg | Val | Gly | Arg | Glu | Pro | Gln |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Tyr | Thr | Leu | Pro | Pro | Ser | Arg | Glu | Xaa | Met | Thr | Lys | Lys | Gln | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Glu | Leu | Pro | Xaa | Ser | Xaa | Gly | Phe | Tyr | Pro | Thr | Lys | Ser | Pro |
| | | | 35 | | | | 40 | | | | | 45 | | |

<210> 1667

<211> 34

<212> PRT

1726

<213> Homo sapiens

<220>

<221> SITE

<222> (34)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1667

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Glu | Ile | Thr | Leu | Gln | Gly | Glu | Pro | Lys | Leu | Arg | Pro | Pro | Lys | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Arg | Ala | Thr | Leu | Glu | Gln | Leu | Lys | Glu | His | Thr | Pro | Leu | Phe | Leu |
| | | | 20 | | | | | 25 | | | | | | 30 | |

Pro Xaa

<210> 1668

<211> 41

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (16)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (26)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (35)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (36)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (38)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1668

Ile Cys Pro Gln Asn Pro Leu Asn Pro Leu Val Asn Leu Thr Val Xaa

1727

```

      1           5           10           15
Pro Lys Arg Asn Lys Leu Phe Gly His Xaa Glu Lys Thr Leu Tyr Arg
      20           25           30
Glu Glu Xaa Xaa Phe Xaa Asn Pro Tyr
      35           40

```

```
<210> 1669
<211> 96
<212> PRT
<213> Homo sapiens

<220>
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<222> (20)
<223> Xaa equals any of the naturally occurring L-amino acids
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```
<220>
<221> SITE
<222> (77)
<223> Xaa equals any of the naturally occurring L-amino acids
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```
<220>
<221> SITE
<222> (84)
<223> xaa equals any of the naturally occurring L-amino acids
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```
<220>
<221> SITE
<222> (88)
<223> Xaa equals any of the naturally occurring L-amino acids
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```

<400> 1669
Gly Arg Ala Leu Pro Gly Arg Val Arg Ala Ala Thr Gly Glu Gly Arg
 1           5           10           15
Thr Phe Val Xaa Asn Gly Thr Val Leu Leu Ala Pro Pro Arg Gly Gly
      20           25           30
Pro Leu Val Ser Pro Leu Pro Ala Arg Arg Arg Cys Val Trp Glu Gly
      35           40           45
Val Gly Cys Gly Pro Arg Pro Asp Leu Ala Val Pro Pro Ala Ala Phe
 50           55           60
Cys Val Ala Gly Ala Gly Arg Arg Gly Pro Leu Thr Xaa Gln Thr Ala
 65           70           75           80

```

Leu Ala Val Xaa Ser Ser Gly Xaa Arg Leu Ala Gly Gly Thr Pro Thr
85 90 95

Gly Lys Arg Gly Pro Ala Thr Cys Pro Ala Trp Ala Pro Glu Pro Ser
85 90 95

1729

Ser Leu Thr Gly Gln Ser Leu Val Gly Lys Ala Ala Ser Trp Pro Xaa
 100 105 110

Ser Leu Leu Met Phe Leu Val Ser Arg Val Gln Ser Gln Leu Phe Xaa
 115 120 125

Phe Leu Val Val Pro Val Xaa Glu Ala Phe Gln Asn
 130 135 140

<210> 1671

<211> 34

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (2)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (20)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (27)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1671

His Xaa Xaa Met Glu Ser Asp Lys Met Val Thr Gly Ser Trp Gly Pro
 1 5 10 15

Arg Leu Ser Xaa His Glu Gly Cys Ser Ala Xaa Cys Ile Ser Val Tyr
 20 25 30

Val Val

<210> 1672

<211> 113

1730

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (2)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (7)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (12)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1672

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Xaa | Leu | Leu | Thr | Ile | Xaa | Glu | Ser | Trp | Tyr | Xaa | Cys | Arg | Tyr | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Gly | Ile | Pro | Gly | Gly | Ile | Pro | Leu | Ser | Pro | Arg | Asp | Pro | Thr | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Ser | Trp | Pro | Thr | Arg | Ser | Arg | Glu | Ser | Leu | Arg | Glu | Arg | Arg | Arg |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Arg | Ala | Ala | Ser | Gly | Leu | Gly | Ile | Arg | Pro | Leu | Gly | Pro | Pro | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Ser | Arg | Val | Gly | Arg | Asn | Arg | Arg | Leu | Ala | His | Leu | Ala | Trp | Val |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Pro | His | Val | Val | Ile | Val | Gln | Ile | Asn | Ala | His | Ser | Glu | Leu | Ala |
| | | | 85 | | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Tyr | Phe | Leu | Lys | Phe | Asn | Ile | Val | Phe | Val | Ile | Leu | Lys | Tyr | Leu |
| | | | 100 | | | | | 105 | | | | | | 110 | |

Leu

<210> 1673

<211> 86

<212> PRT

<213> Homo sapiens

<220>

1731

<221> SITE

<222> (85)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1673

Pro Ala Phe Asn Phe Asp Pro Leu Phe Phe Leu Phe Val Arg Cys Thr
 1 5 10 15

Arg Leu Pro Ser Cys Phe Ser Leu Leu Ser Cys His Gln Pro Phe Leu
 20 25 30

Leu Gly Gly His Val Leu Gly Lys Arg Pro His Asp Leu Ser Gly Ser
 35 40 45

Thr Gln Cys Leu Arg His Pro Ala Ser Phe Ala Cys Ile Pro Gln Thr
 50 55 60

Ile Ser Leu Ile Leu Phe Thr Ala Ala Asn Leu Ser Leu Val Asp Glu
 65 70 75 80

Thr Val Phe Ile Xaa Leu
 85

<210> 1674

<211> 56

<212> PRT

<213> Homo sapiens

<400> 1674

Ser Asp Tyr Glu Leu Leu Phe Lys Arg Lys Met Leu Phe Ile His Ala
 1 5 10 15

Glu Val Ile Gln Phe Pro Pro Ser Tyr Arg Ser Ile Leu Ile His Pro
 20 25 30

Thr Leu Glu Met Gln His Leu Cys Gly Arg Leu Phe His Lys Pro Pro
 35 40 45

Arg Leu Leu Arg Leu Gly Arg Tyr
 50 55

<210> 1675

<211> 65

<212> PRT

<213> Homo sapiens

<220>

1732

<221> SITE

<222> (10)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (24)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (43)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1675

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Val | Cys | Ile | Leu | Pro | Lys | Val | Arg | Xaa | Pro | Thr | Leu | Gly | Ile | Thr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Leu | Ile | Val | Ile | Leu | Val | Xaa | Ile | Leu | Pro | Gly | Val | Met | Tyr | Ser |
| | | 20 | | | | | 25 | | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Lys | Ala | Leu | Asn | Val | Cys | Ile | Ala | Thr | Xaa | His | Gln | Ile | Leu | Asn |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Leu | Ser | Phe | Gly | Trp | Asn | Tyr | Lys | Leu | Lys | Lys | Cys | Phe | Ser | Gly |
| | 50 | | | | | 55 | | | | | 60 | | | | |

Lys

65

<210> 1676

<211> 52

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (44)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1676

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Thr | Glu | Gln | Val | Thr | Leu | Gly | Ile | Thr | Ala | Gln | Ser | Tyr | Ser | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | His | Ile | Asn | Asn | Arg | Val | Tyr | Asp | Leu | Asp | Val | Gly | Ser | Gly | His |
| | | 20 | | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|---|---|-----|
| Pro | Asp | Gly | Ala | Ala | Ala | Ile | Lys | Gly | Ser | Ph | Xaa | Gln | Arg | L | u | Lys |
| | | 35 | | | | | 40 | | | | | 45 | | | | |

1733

Ser Tyr Val Ile
50

<210> 1677
<211> 40
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (1)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
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<222> (2)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
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<222> (14)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
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<220>
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<222> (34)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
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<220>
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<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1677
Xaa Xaa Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Xaa Lys Lys
1 5 10 15

Lys Lys Lys Lys Lys Lys Gly Gly Arg Xaa Lys Gly Ser Lys Leu Thr

1734

20 25 30
Tyr Xaa Cys Met Xaa Arg Xaa Ser
35 40

<210> 1678
<211> 49
<212> PRT
<213> Homo sapiens

<400> 1678
Thr Ala Ala Met Ser Ile Phe Thr Pro Thr Asn Gln Ile Arg Leu Thr
1 5 10 15
Asn Val Ala Val Val Arg Met Lys Arg Ala Arg Lys Arg Phe Glu Ile
20 25 30
Ala Cys Tyr Arg Asn Lys Ser Ser Ala Gly Gly Gly Leu Trp Lys Lys
35 40 45
Thr

<210> 1679
<211> 51
<212> PRT
<213> Homo sapiens

<400> 1679
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1 5 10 15
Ala Met Asp Gln Leu Ala Lys Thr Thr Gln Glu Thr Ile Asp Lys Thr
20 25 30
Ala Asn Gln Ala Ser Asp Thr Phe Ser Gly Ile Gly Lys Lys Phe Gly
35 40 45
Leu Leu Lys
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<210> 1680
<211> 41
<212> PRT
<213> Homo sapiens

1735

<400> 1680

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1 5 10 15

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20 25 30

Thr Asn Val Arg Cys Val Thr Gly Glu
35 40

<210> 1681

<211> 34

<212> PRT

<213> Homo sapiens

<220>

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<400> 1681

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20 25 30

Ala Leu

<210> 1682

<211> 85

<212> PRT

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1736

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<400> 1682

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Ser | Asn | Ser | Asn | Tyr | Ala | Leu | Ile | Gly | Ala | Leu | Arg | Ala | Val | Ala |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Thr | Ile | Ser | Tyr | Glu | Val | Thr | Leu | Ala | Ile | Ile | Pro | Thr | Ile | Asn |
| | | | 20 | | | | | 25 | | | | | | 30 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Thr | Asn | Xaa | Leu | Ala | Pro | Leu | Thr | Ser | Pro | Pro | Leu | Ser | Gln | His |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Asn | Thr | Pro | Glu | Tyr | Pro | Ala | Ile | Ile | Thr | Leu | Trp | Pro | Tyr | Xaa |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Ile | Phe | His | Thr | Arg | Xaa | Asn | Asn | Glu | Pro | Pro | Ser | Xaa | Leu | Xaa |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |

| | | | | |
|-----|-----|-----|-----|-----|
| Lys | Gly | Asn | Phe | Xaa |
| | | | | 85 |

<210> 1683

<211> 53

<212> PRT

<213> Homo sapiens

<400> 1683

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| Val | Gly | Leu | Glu | Ile | Asn | Met | Leu | Ala | Phe | Ile | Pro | Val | Leu | Thr | Lys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Ile | Asn | Pro | Arg | Ser | Thr | Glu | Ala | Ala | Ile | Lys | Tyr | Phe | Leu | Thr |
| | | | 20 | | | | | 25 | | | | | | 30 | |

1737

Gln Ala Thr Ala Ser Ile Ile Leu Leu Ile Ala Il Leu Phe Asn Asn
35 40 45

Ile Leu Ser Gly Gln
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<211> 169
<212> PRT
<213> Homo sapiens
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20 25 30

Glu Gly Asp Glu Ile Ser Ile His Ala Asp Phe Glu Asn Thr Cys Ser
35 40 45

Arg Ile Val Val Pro Lys Ala Ala Ile Val Ala Arg His Thr Tyr Leu
50 55 60

1738

Ala Asn Gly Gln Thr Lys Val Leu Thr Gln Lys Leu Ser Ser Val Arg
65 70 75 80

Gly Asn His Ile Ile Ser Gly Thr Cys Ala Ser Trp Arg Gly Lys Ser
85 90 95

Leu Arg Val Gln Lys Ile Arg Pro Ser Ile Leu Gly Cys Asn Ile Leu
100 105 110

Arg Val Glu Tyr Ser Leu Leu Ile Tyr Val Ser Val Pro Gly Ser Lys
115 120 125

Lys Val Ile Leu Asp Leu Pro Leu Val Ile Gly Ser Arg Ser Gly Leu
130 135 140

Ser Xaa Arg Thr Ser Ser Trp Xaa Ala Xaa Thr Xaa Ser Glu Asp Glu
145 150 155 160

Xaa Gly Arg Ser Glu His Pro Asp Thr
165

<210> 1685

<211> 733

<212> DNA

<213> Homo sapiens

<400> 1685

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tctcccgga ccttgaggtc acatgcgtgg tgggtggacgt aagccacgaa gaccctgagg 180
tcaagttcaa ctggtacgtg gacggcgtgg aggtgcataa tgccaagaca aagccgcggg 240
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ggctgaatgg caaggagtac aagtgcagg tctccaacaa agccctcca acccccatcg 360
agaaaacat ctccaaagcc aaagggcagc cccgagaacc acaggtgtac accctgcccc 420
catcccgga tgagctgacc aagaaccagg tcagcctgac ctgcctggtc aaaggcttct 480
atccaagcga catcgccgtg gagtgggaga gcaatgggca gccggagaac aactacaaga 540
ccacgcctcc cgtgctggac tccgacggct ccttcttct ctacagcaag ctcaccgtgg 600
acaagagcag gtggcagcag gggaacgtct tctcatgctc cgtgatgcat gaggctctgc 660
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<213> Homo sapiens

1739

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1

5

<210> 1687

<211> 86

<212> DNA

<213> Homo sapiens

<400> 1687

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<210> 1688

<211> 27

<212> DNA

<213> Homo sapiens

<400> 1688

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<210> 1689

<211> 271

<212> DNA

<213> Homo sapiens

<400> 1689

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gccctaact ccgcccagtt ccgcccattc tccgcccatt ggctgactaa ttttttttat 180
ttatgcagag gccgaggccg cctcggcctc tgagctattc cagaagtagt gaggaggctt 240
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<210> 1690

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<213> Homo sapiens

<400> 1690

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1740

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<400> 1691
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<210> 1692
<211> 12
<212> DNA
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<400> 1692
ggggactttc cc 12

<210> 1693
<211> 73
<212> DNA
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ccatctcaat tag 73

<210> 1694
<211> 256
<212> DNA
<213> Homo sapiens

<400> 1694
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caattagtc gcaaccatag tcccggccct aactccgccc atcccggccc taactccgcc 120
cagttccgcc cattctccgc cccatggctg actaattttt ttattttatg cagaggccga 180
ggccgcctcg gcctctgagc tattccagaa gtagtgagga ggcttttttg gaggcctagg 240
cttttgcaaa aagctt 256

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US00/05882

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : C12P 19/34

US CL : 435/91.1

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 435/91.1

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
MEDLINE, SCISEARCH, GenEmbl Database

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim N |
|------------|---|-------------------------------------|
| Y | Database GenEmbl on STN. KELKER, W. 'Sequence of human E-cadherin cDNA', GenEmbl Database, Accession Z18923.1, Version Z18923.1 GI:31074, 04 December, 1992 (04.12.1992), see nucleotide position 456-1007. | 1-12, 14-16, and 21 for SEQ ID NO:1 |
| Y | BANERJI, J. A gene pair from the human major histocompatibility complex encodes large proline-rich proteins with multiple repeated motifs and a single ubiquitin-like domain, Proc. Natl. Acad. Sci. USA, 1990, Vol 87, pages 2374-2378, see entire document. | 1-12, 14-16, and 21 for SEQ ID NO:2 |
| Y | Database GenEmbl on STN. SKUCE, C. 'Homo sapiens chromosome 20 clone RP4-661I20 map q11.23-12', GenEmbl Database, Accession AL031669, Version AL031669.18 GI:6983365, 11 FEBRUARY, 2000 (04.02.2000), see nucleotide position 63147-63482. | 1-12, 14-16, and 21 for SEQ ID NO:3 |
| Y | Database GenEmbl on STN. RAKER, V.A. 'Human SnRNP core protein Sm D2 mRNA, complete cds', GenEmbl Database, Accession U15008, Version U15008.1 GI:600747, 10 December, 1994 (10.12.1994), see nucleotide position 23-479 | 1-12, 14-16, and 21 for SEQ ID NO:4 |
| Y | Database GenEmbl on STN. ELLER et al. 'Cellular retinoic acid-binding protein [human, skin, mRNA, 735 nt]', GenEmbl Database, Accession S74445, Version S74445.1, GI:241541, 7 May, 1993 (07.05.1993), see nucleotide position 7-733. | 1-12, 14-16 and 21 for SEQ ID NO:6 |



Further documents are listed in the continuation of Box C.



See patent family annex.

| | | | |
|--|---|-----|--|
| Special categories of cited documents: | | "T" | later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention |
| "A" | document defining the general state of the art which is not considered to be of particular relevance | "X" | document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone |
| "E" | earlier application or patent published on or after the international filing date | "Y" | document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art |
| "L" | document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) | "&" | document member of the same patent family |
| "O" | document referring to an oral disclosure, use, exhibition or other means | | |
| "P" | document published prior to the international filing date but later than the priority date claimed | | |

Date of the actual completion of the international search

03 May 2000 (03.05.2000)

Date of mailing of the international search report

26 JUL 2000

Name and mailing address of the ISA/US

Commissioner of Patents and Trademarks
Box PCT
Washington, D.C. 20231

Facsimil No. (703)305-3230

Authorized officer

Michael Woodward

Telephone No. (703) 308-0196

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US00/05882

C (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|-----------|---|--------------------------------------|
| Y | Database GenEmbl on STN. SHARMA et al 'Human class III alcohol dehydrogenase (ADH5) chi subunit mRNA, complete cds.', GenEmbl Database, Accession M30471, Version M30471.1 GI:178133, 5 October, 1995 (05.10.1997), see nucleotide position 2-2277. | 1-12, 14-16, and 21 for SEQ ID NO:8 |
| Y | Database GenEmbl on STN. ABEDINIA, M. 'Human transketolase (TKT) mRNA, complete cds.', GenEmbl, Accession U55017 M86521, Version U55017.1 GI:1297296, 6 May, 1996 (06.05.1996), see nucleotide position 687-2038. | 1-12, 14-16, and 21 for SEQ ID NO:10 |

BOX II. OBSERVATIONS WHERE UNITY OF INVENTION IS LACKING This application contains the following inventions or groups of inventions which are not so linked as to form a single inventive concept under PCT Rule 13.1.

Group 1, claims 1-12, 14-16, and 21 in so far as they are drawn to the first ten polynucleotides of Table 1 (pages 12-118), protein, vector, gene, method of making host cell, recombinant host cell, method of producing the protein of SEQ ID NO:61.

Groups 2-209, claims 1-12, 14-16, in so far as they are drawn to the next 208 polynucleotide groups (any four sequences constitute a single group) and encoded proteins listed in Table 1.

Groups 210-418, claim 13, in so far as they are drawn to isolated antibodies that bind to any one group of the next 208 polypeptide sequence groups listed in Table 1.

Groups 419-627, claims 15-16, in so far as they are drawn to a method of making any one group of the next 208 polypeptide sequence groups listed in Table 1.

Groups 628-836, claim 17, in so far as they are drawn to a method of treatment by administration any one group of the next 208 polypeptide sequence groups listed in Table 1.

Groups 837-1045, claim 18, in so far as they are drawn to a method of diagnosing a pathological condition by determining a presence or absence of a mutation in any one group of the next 208 polypeptide sequence groups listed in Table 1.

Groups 1046-1255, claim 19, in so far as they are drawn to a method of diagnosing a pathological condition by determining the presence or amount of any one group of the next 208 polypeptide sequence groups listed in Table 1.

Groups 1256-1465, claims 20 and 23, in so far as they are drawn to a method of identifying any one group of the next 208 polypeptide sequence groups listed in Table 1, and the product produce by the same method.

Group 1466-1675, claim 22, in so far as they are drawn to a method of identifying an activity in a biological assay by expressi n of any one group of the next 208 polypeptide sequence groups listed in Table 1.

The inventions not elected, do not relate to a single inventive concept under PCT Rule 13.1 because, under PCT rule 13.2, the non-elected groups lack the same or corresponding technical features for the following reasons: Group 1 corresponds to the first invention wherein the first product is the polynucleotide, and the first method of use is the method of using the polynucleotide to make the protein, and the protein. Note, there is no method of making the polynucleotide. Each of groups 2-1675 does not share the same or corresponding special technical feature because, each group is drawn to different polynucleotide or encoded protein. Additionally, each of groups 210-1675 does not share the same or corresponding technical feature because, each group is drawn to different compounds or methods of using any of the fifty polynucleotides and encoded proteins listed in Table 1. The Authority therefore considers that the several inventions do not share a special technical feature within the meaning of PCT Rule 13.2 and thus do not relate to a single general inventive concept within the meaning of PCT Rule 13.1.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US00/05882

Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)

This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claim Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claim Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claim Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of Item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:
Please See Continuation Sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.: 1-12, 14-16, and 21 for the first 10 sequences in Table 1

Remark on Protest

☐
☐

The additional search fees were accompanied by the applicant's protest.

No protest accompanied the payment of additional search fees.